# Rocky Flats Environmental Technology Site

## MAN-076-FDPM

## REVISION 0

# FACILITY DISPOSITION PROGRAM MANUAL

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Print Name | Date

Effective Date: 1/14/99

**CONCURRENCE BY THE FOLLOWING DISCIPLINES IS DOCUMENTED IN THE PROCEDURE HISTORY FILE:**

**Kaiser-Hill Company, L.L.C.**

Closure Projects Integration
Environmental Systems & Stewardship
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Rocky Flats Closure Site Services, L.L.C.
Rocky Mountain Remediation Services
Safe Sites of Colorado



**USE CATEGORY 3**

SES/USQD Review: PRE-RFP-99.0200-RLD

ISR: Not Required

This is a new manual.

Periodic review frequency: 3 years from effective date.

**Reviewed for Classification / UCNI**

By _____ UCNI

Date 1/15/99

**PADC-1999-00153**



Y216

## LIST OF EFFECTIVE PAGES

Pages Effective Date

1-216 1/14/99

Integrates Closure Project Standards Issued by Memo April 13, 1998

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# CHAPTER 1
# INTRODUCTION

## 1.0 PURPOSE

The Facility Disposition Program Manual (Manual) establishes the requirements for planning and executing work based on regulations, agency agreements, consent orders, and Site infrastructure requirements for the disposition of facilities at the Rocky Flats Environmental Technology Site (RFETS) in accordance with the Rocky Flats Cleanup Agreement (RFCA) and the Decommissioning Program Plan (DPP).

This Manual also provides guidance to Project Managers (PM) for identifying and implementing the facility disposition requirements and provides implementation tools, e.g., templates, tables, process flow charts, checklists, etc., to aid the PMs in performing their duties.

## 1.1 APPLICABILITY AND USE

This Manual applies to all Site employees and subcontractors performing or supporting Facility Disposition work. The requirements in this manual **SHALL** be used for all Facility Disposition projects. Any changes or revisions to this manual **SHALL** be approved by the Facility Disposition Program owner who is the Kaiser-Hill Company, L.L.C., Closure Projects Integration Division Manager for Decontamination and Decommissioning (D&D) Projects and Construction.

This Manual identifies mandatory elements and requirements by using the word "**SHALL**." Additionally, the manual uses the word "**Should**" to indicate a recommendation that is based on standards and good business practices. The word "***may***" is used when permission is granted rather than constituted as a requirement.

## 1.2 OVERVIEW

This Manual embodies the functions and principles of Integrated Safety Management System (ISMS) by ensuring the five functions of ISMS are implemented throughout the life of the project. These five functions are: 1) Define the scope of work, 2) Identify and analyze the hazards, 3) Identify and implement the appropriate controls, 4) Perform the work using the controls, and 5) Provide feedback on the work and planning process to improve the outcome.

Table 1-1, Chapter Overview provides an overview of each of the chapters contained in this Manual and their corresponding appendices.

**Table 1-1**
**CHAPTER OVERVIEW**

| Chapter Contents | | Appendices |
|---|---|---|
| **CHAPTER 1**<br>**INTRODUCTION** | • Manual Purpose, Applicability, Chapter Overview<br>• Responsibilities<br>• Records, References | **Appendix A**<br>A-1 *Project Strategies, Plans, and Deliverables Matrix* |
| **CHAPTER 2**<br>**FACILITY DISPOSITION PROCESS** | • Overview of Regulatory Framework<br>• Overview of Facility Disposition (High Level Flow Chart)<br>• Overview of Planning Process Phases (All elements, and Key Process Element Descriptions *(Facility Type, Decision Document, Characterization Process, & PEP)*<br>• Overview of Execution Phases for Facility Disposition | **Appendix B**<br>B-1 Type 1 Facility Disposition Checklist<br>B-2 Listing of Facilities by "Anticipated" Type |
| **CHAPTER 3**<br>**PROJECT INITIATION AND SCOPING** | • Scoping Elements<br>• Establishing the Project Team *(Roles & Responsibilities, Qualifications, Regulatory Interfaces)*<br>• Project Team Kick-off<br>• Scoping Characterization<br>• Joint Scoping Meeting w/LRA<br>• Initial Development of: Scoping PEP, Waste, DD&D, AB, Contracting, RCRA Permitting, etc., Strategies<br>• Project Files & Administrative Records<br>• Preliminary Options Analysis | **Appendix C**<br>C-1 Project Execution Plan (PEP) Template<br>C-2 Daily Construction Report<br>C-3 *Monthly Personnel Resource Usage Report*<br>C-4 Construction Progress Photographs |
| **CHAPTER 4**<br>**PHASE I PLANNING** | • Reconnaissance Level Characterization (RLC)<br>• RLC Plan/Report, Review & Approval Cycles<br>• Options & Feasibility Studies<br>• Update to Strategies & Plans<br>• Engineering Studies & Assessments<br>• Update to PEP | **Appendix D**<br>D-1 Reconnaissance Level Characterization & Final Survey Plan (RLCP) Template<br>D-2 Reconnaissance Level Characterization Report & Final Survey (RCLR) Template |
| **CHAPTER 5**<br>**PHASE II PLANNING & ENGINEERING** | • Decision Document Requirements<br>• Authorization Basis<br>• IWCP & Engineering Design Packages<br>• Final PEP<br>• Other Planning Characterizations | **Appendix E**<br>E-1 Statement of Work<br>E-2 Instructions for Subcontractor Pool Application<br>E-3 Decision Document Guidance<br>E-4 Decision Document Template |
| **CHAPTER 6**<br>**EXECUTION** | • *Readiness Determinations*<br>• Training Requirements<br>• Physical Work Preparation & Site Preparation<br>• Dismantlement Activities<br>• In-Process Characterization, Final & Validation Surveys<br>• Demolition<br>• Transition to Environment Restoration<br>• Waste Management | ***Appendix F***<br>F-1 Core Training Requirements D&D Worker |
| **CHAPTER 7**<br>**PROJECT CLOSEOUT** | • Project Acceptance & Close-Out Documentation Standards<br>• Project Reporting Standards and Required Reports<br>• Division 1 Specifications<br>• Project Acceptance and Close-Out Tasks and Documentation (Beneficial Occupancy, Project Acceptance & Transfer)<br>• Final Project Closeout Report<br>• Lessons Learned | **Appendix G**<br>G-1 Partial & Complete Subcontract CloseOut Form<br>G-2 Project Beneficial Occupancy Notice<br>G-3 Project Acceptance And Transfer Form<br>G-4 Project Final Closeout Form (FPCO) |
| **CHAPTER 8**<br>**REFERENCES** | • References | |
| **CHAPTER 9**<br>**APPENDICES** | • Appendices (All above plus Appendix H) | H – Glossary & Acronyms |

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## 1.3 DEFINITIONS & ACRONYMS

All definitions and acronyms referred to throughout this manual are contained in Appendix H, Glossary. The following definitions, and the definitions provided in Appendix H, Glossary, apply to the Facility Disposition process at RFETS. The RFETS specific definitions provided in this Manual take precedence over definitions in the RFP Dictionary or other Level 1 Program Manuals.

Consistent with RFCA and the DPP, the FDPM follows the RFCA convention insofar as the term "building" may mean a building, portion thereof, structure, system or component.

**Building Stabilization**, as used for the facility disposition process at RFETS, means:

*" . . . deactivation activities in non-nuclear buildings."*

These are activities necessary to remove a building from operation and place the building in a safe and stable condition so that the building and its contents are in a condition that eliminates or mitigates hazards and ensures adequate protection to workers, the public and the environment. Activities necessary to achieve and maintain building stabilization may include inventory and removal of hazardous materials from the facilities and immediate areas, such as regulated hazardous chemicals, beryllium, and gas cylinders, roof repairs over critical areas, asbestos abatement and/or encapsulation, and repack of existing waste crates in questionable condition.

Building stabilization is achieved when the facility is in a safe and stable condition while awaiting further disposition and/or decommissioning, dismantlement, and demolition.

*Note: Building stabilization applies to non-nuclear buildings.*

**Deactivation**, as defined in RFCA paragraph 25(y) means:

*" . . . the process of placing a building, portion of a building, structure, system, or component (as used in the rest of this paragraph, "building") in a safe and stable condition to minimize the long-term cost of a surveillance and maintenance program in a manner that is protective of workers, the public, and the environment. Actions during deactivation could include the removal of fuel, draining and/or de-energizing of nonessential systems, removal of stored radiological and hazardous materials and related actions. As the bridge between operations and decommissioning, based upon Decommissioning Operations Plans or the Decommissioning Program Plan, deactivation can accomplish operations-like activities such as final process runs, and also decontamination activities aimed at placing the building in a safe and stable condition. Deactivation does not include decontamination necessary for the dismantlement and demolition phase of decommissioning, i.e., removal of contamination remaining in fixed structures and equipment after deactivation. Deactivation does not include removal of contaminated systems, system components, or equipment except for the purpose of accountability of Special Nuclear Material SNM and nuclear safety. It also does not include removal of contamination except as incidental to other deactivation or for the purposes of accountability of SNM and nuclear safety."*

*Note: Deactivation terminology applies to nuclear buildings.*

The following are examples of potential end points for deactivation. Not all end points will apply in all buildings which go through a deactivation process:

- a determination that the probability of a criticality event in the building is considered not credible;
- removal of all combustibles that are not integral parts of the building;
- removal of all classified materials;
- a shift in primacy from Atomic Energy Act oversight of the Defense Nuclear Facility Safety Board (DNFSB) to Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) regulation through RFCA by the Environmental Protection Agency (EPA) and the Colorado Department of Public Health and Environment (CDPHE).

Activities such as waste chemical removal, disposition of excess property, chemical hazards reduction and placement of RCRA units into RCRA stable condition, or their closure, may occur either during deactivation or decommissioning.

**Decommissioning**, as defined in RFCA paragraph 25(z) means:

*". . . for those buildings, portions of buildings, structures, systems or components (as used in the rest of this paragraph, "building") in which deactivation occurs, all activities that occur after the deactivation. It includes surveillance, maintenance, decontamination and/or dismantlement for the purpose of retiring the building from service with adequate regard for the health and safety of workers and the public and protection of the environment. For those buildings in which no deactivation occurs, the term includes characterization as described in Attachment 9, surveillance, maintenance, decontamination and/or dismantlement for the purpose of retiring the building from service with adequate regard for the health and safety of workers and the public and protection of the environment. The ultimate goal of decommissioning is unrestricted use or, if unrestricted use is not feasible, restricted use of the buildings."*

**Disposition**, as defined in RFCA Attachment 9, means:

*". . . the sequence of activities required to take a building/facility from its existing condition to its final disposition."*

The term building/facility disposition is used to describe the entire building/facility disposition process. It includes removal of property, waste, chemicals, SNM, and holdup; stripout of fixed equipment; decontamination; demolition; waste removal or emplacement; and the characterization and planning necessary to support any or all of the above. Building/facility disposition is distinguished from landlord activities in that landlord activities are those that occur in order to keep a building in its current, operating condition. The primary planning document for the facility disposition process is the Project Execution Plan (PEP). PBDs are the documents by which DOE approves the annual work scope and budget that is derived from the PEP.

NOTE: SNM and residue elimination activities specifically covered elsewhere are considered part of the facility disposition process; however, these activities do not require a RFCA decision document.

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**Mothballing**, as defined in section 3.3.4 of the DPP, means:

*". . . placing a building in a condition where it is no longer actively occupied. Ventilation, heating and air conditioning, and fire detection and protection systems may be turned off. Sump pumps to remove groundwater infiltration may be operating."*

The DPP requires that a Reconnaissance Level Characterization Report (RLCR) be submitted to the Lead Regulatory Agency (LRA) prior to mothballing a facility. In addition, if DOE chooses to "mothball" a facility, DOE will submit a hazards analysis of the facility specific conditions for the mothballed period, meet with the LRA to discuss any potential hazards or releases to the environment which might occur during the mothball period, devise actions to mitigate potential releases in collaboration with the LRA and propose adequate monitoring methods to monitor any release.

## 1.4 RESPONSIBILITIES

***Note:*** *Appendix A-1, Project Strategies, Plans, and Deliverables Matrix also provides a listing of authorities for some key Facility Disposition documents.*

### 1.4.1 Vice President, Closure Project Integration (CPI)

- The Vice President, CPI, has overall programmatic and compliance responsibility for all Closure Projects and Facility Disposition Projects.
- Provides overall management guidance for all programs and projects under the charter of Closure Projects.
- Develops new or expanded programs and provides support for the programs.
- Ensures safety through implementation of the Integrated Safety Management philosophy.
- Is ultimately responsible for all CPI assigned programs and projects.
- Interfaces with Environmental Systems and Stewardship (ESS) Vice President, DOE, the Environmental Protection Agency (EPA), and the Colorado Department of Public Health and Environment (CDPHE).
- Oversees CPI cost and schedule budgeting and reporting information from Divisional Managers and Project Managers and establishes the Closure Project Baseline.
- The Vice President, Closure Projects Integration is responsible for ensuring that Facility Disposition activities under the Closure Projects Integration charter comply with the requirements of this Manual.

### 1.4.2 Vice President, Nuclear Operations

The Vice President, Nuclear Operations is responsible for ensuring that Facility Disposition activities under the Nuclear Operations charter comply with the requirements of this Manual.

### 1.4.3 Vice President, Safeguards, Security, Site Operations and Integration

The Vice President, Site Operations is responsible for ensuring that Facility Disposition activities under the Site Operations' charter comply with the requirements of this Manual.

### 1.4.4 Vice Presidents, All Organizations

The Vice President from each organization is responsible for providing Subject Matter Experts (SME) support to Facility Disposition Projects.

### 1.4.5 Division Manager, D&D Projects & Construction

- The Division Manager, D&D Projects and Construction is the primary point of contact with internal and external customers, clients, or regulators in coordination with RFCA Project Coordinators for all issues surrounding Facility Disposition (D&D) Projects.
- Ensures that Facility Disposition processes, tools, and techniques described in the manual are in accordance with the requirements contained in the RFCA and the DPP.
- Provides for interpretation, implementation, continuous improvement, maintenance, and approval of this Manual
- Approves all CPI PEPs. If the project is not currently assigned to CPI, then the Division Manager, D&D Projects & Construction, must concur with the PEP (signature on the document coversheet) that it meets the requirements of this manual.
- Approves (for release to DOE and other stakeholders) all Decommissioning Operations Plans (DOP), Proposed Action Memorandum (PAM), Interim Measure/Interim Remediation Action (IM/IRA), and Reconnaissance Level Characterization Report (RCLR) documents as required by this Manual for all Facility Disposition Projects.
- Reviews all Work Authorization Documents (WADs) containing Facility Disposition activities.
- Reviews and reports on CPI Performance Measures, Cost and Schedule Variances, and Baseline Change Proposals (BCP) and initiates corrective actions as necessary.
- Performs oversight on all Facility Disposition Projects being conducted at the RFETS to ensure compliance with external and internal regulations and requirements, including quality assurance, health & safety, etc.

### 1.4.6 Manager, D&D Project Execution

- Performs oversight on all CPI Facility Disposition projects being conducted at the RFETS to ensure compliance with external and internal regulations and requirements, including quality assurance, health & safety, etc.
- Ultimate responsibility, accountability, and authority in any matter involving CPI Facility Disposition project execution.
- Provides expert judgement, and assists in planning of projects. If applicable, initiates tests and research that will contribute to project objectives.
- Monitors project reports for all assigned projects to ensure that the reports are kept current and project milestones are met.

### 1.4.7 Manager, D&D Advanced Planning

- Updates this Manual and assures compliance with regulatory requirements, e.g., RFCA, DPP.
- Implements the program requirements for the Site's Facility Disposition process.
- Develops site wide processes for the facility disposition effort. e.g., decontamination procedures, decontamination processes, etc.)
- Implements Site processes needed for Facility Disposition, e.g., GSA, HUD.
- Provides single point of contact for the Facility Disposition document reviews and establishes Facility Disposition document consistency for the Site.
- Assigns Lead Reviewers to review Facility Disposition Project documents.

### 1.4.8 Manager, D&D Project Controls

- Maintains the D&D Cost Model.
- Provides input to the Closure Projects Baseline (CPB) and provides technical oversight of the WBS elements.

### 1.4.9 Kaiser-Hill Project Managers/Directors

- The Kaiser-Hill Project Manager/Director (referred to within as Project Manager) has ultimate responsibility, accountability, and authority in any matter involving their specific assigned Disposition project.
- Responsible for managing their assigned project within the authorized funding and approved work scope and schedule.

- Ensures that a project-specific administrative record file is created and maintained throughout the project.
- Ensures compliance with all regulatory and infrastructure requirements.
- Reviews and approves all major planning documents, Decision documents, PEP, Authorization Basis (AB), Waste Management Plans, etc., associated with the project.
- Requests assistance from facility and Site safety management programs to oversee certain aspects of the work.
- Ensures that project teams, when required, are made up of the properly qualified safety personnel and subject matter experts.
- Implements the decisions made by the use of this Manual in the execution of planning, analysis, procedure writing, work package generation, and development of decision documents.
- Ensures that the primary subcontractor executes the work within the assigned scope of work, on time, and within budget.

### 1.4.10 Primary Sub-Contractor Project Managers

- Identifies all activities within their areas of responsibility that require planning and collects available information for each activity.
- Ensures project is performed within cost, scope, and schedule.
- Coordinates staff, directs, and controls the project implementation through completion.
- Requests assistance from facility and Safety Management Program Subject Matter Experts to assist in developing the assessments of activity hazards and in selecting the appropriate work planning level.
- Ensures that teams, when required, are made up of the properly qualified safety personnel and subject matter experts.
- Implements the decisions made by the use of this manual in the execution of planning, analysis, procedure writing, work package generation, and development of decision documents.

### 1.4.11 Subject Matter Experts (SMEs)

- SMEs support development and implementation of Facility Disposition documents in accordance with the regulatory requirements in this Manual, the Decontamination and Decommissioning Characterization Protocol, and the appropriate Safety Management Programs (SMPs).

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- Provide input into the work document planning and development process to develop a product that will implement the elements of the Facility Disposition Manual, while also ensuring efficiency and workability are incorporated.

### 1.4.12 All Employees

- Follow the requirements of this Manual.

- Identify and report Site health, safety, and environmental concerns or deficiencies as a routine element of their normal activities.

## 1.5 RECORDS

Records generated by this Manual are considered Quality Assurance (QA) records. The Project Manager (PM) maintains and dispositions the screening decision documents in accordance with 1-V41-RM-001, *Records Management Guidance for Records Sources.*

Records identified as Administrative Records (ARs) **SHALL** be maintained in accordance with 1-F78-ER-ARP-001, CERCLA Administrative Records Program to be placed in the project specific administrative record file.

See also Chapter 3, Scoping, Chapter 7, Project Closeout, and Appendix A-1 for more specific information on project files and Administrative Records.

## 1.6 REFERENCES

All references referred to within are contained in Chapter 8, References.

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# CHAPTER 2
# FACILITY DISPOSITION PROCESS

## 2.0 PURPOSE

The purpose of this Chapter is to provide the user with an overview of:

- The Regulatory Framework for Facility Disposition, e.g., the Rocky Flats Cleanup Agreement (RFCA) and the Decommissioning Program Plan (DPP) requirements;
- How the RFCA and DPP have been promulgated into the Site's Facility Disposition Program Manual as programmatic requirements so as to ensure a consistent and standardized approach to performing Facility Disposition activities across the Site;
- The approach and requirements for transferring landlord responsibilities if it is determined that such a change is required;
- The Facility Disposition Planning Process, including a description of the key process elements that are unique to Facility Disposition;
- A brief description of the process and each of the process elements, referencing where in the Manual further detailed descriptions can be found will also be included;
- The Facility Disposition Execution Phases.

## 2.1 REGULATORY FRAMEWORK

On July 19, 1996, the Department of Energy (DOE), Environmental Protection Agency (EPA) and Colorado Department of Public Health and Environment (CDPHE) executed the Rocky Flats Cleanup Agreement (RFCA). RFCA is the Federal Facility Agreement pursuant to the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) and Consent Order under the Resource Conservation and Recovery Act (RCRA) and Colorado Hazardous Waste Act (CHWA). RFCA replaces the Interagency Agreement between these parties that had been in place since 1991 and regulates the Site cleanup under the three statutes.

The Rocky Flats Vision (Vision), RFCA Appendix 9, guides all activities at the Site. Among other things, the Vision for Rocky Flats is to achieve accelerated cleanup and closure of the Site in a safe, environmentally protective manner, and in compliance with applicable state and federal environmental laws and agency agreements. All work done at the Site to achieve the Vision is scheduled through a unified planning process that is captured in the Closure Projects Baseline (CPB), as described in RFCA ¶¶s 136 to 141.

RFCA coordinates DOE's response obligations under CERCLA, closure obligations under CHWA and corrective action obligations under CHWA and RCRA, as well as the remedial activities regulated under the Federal Facility Compliance Act (FFCA) for treatment of mixed wastes generated by RFCA regulated activities.

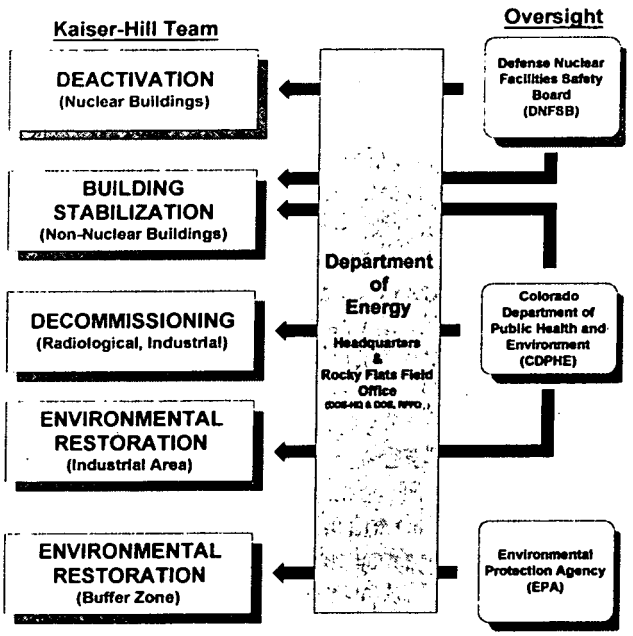
As required by RFCA, the Decommissioning Program Plan (DPP) establishes the regulatory framework to be used for the disposition of facilities at the RFETS. Physical decommissioning of contaminated facilities ***SHALL*** not start without the approval of a RFCA decision document. The DPP describes the screening process for determining what activities require a RFCA decision

document and establishes the process for obtaining regulatory approval to start decommissioning activities.

Many activities do not require RFCA decision documents. These activities include, but are not limited to, real and personal property disposition under federal property management requirements, relocation of mission components to other DOE sites, RCRA closures, day-to-day operation of the site to provide protection to the worker, public and the environment, and ongoing hazard reduction efforts.

Figure 2-1 depicts the various regulatory oversight authorities and decision-makers for the Rocky Flats Environmental Technology Site (Site). This Figure is not intended to be all inclusive, but rather to provide a simplified view of the primary or Lead Regulatory Agency (LRA) for each life-cycle phase of the Sites' Closure Projects. The term LRA is used in this Manual to define the regulatory agency that is the assigned approval authority. The LRA functions as the primary communications and correspondence point of contact with the Project Manager. The Project Manger also interfaces with the Support Regulatory Agency (SRA) and provides documents to the SRA for review, as needed. The LRA coordinates technical reviews with the SRA and consolidates comments assuring technical and regulatory consistency and completeness.

**Figure 2-1**




### 2.1.1 Facility Classification Type

For planning purposes, each RFETS Facility has been initially screened by K-H into one of three types; Type 1, Type 2, or Type 3 (see Appendix B-2 for the Listing of Facilities by "Anticipated" Type). This identification is based on the differing levels of contamination (radioactive and non-radioactive) known or believed to exist within the facility. Each facility "Type" has its own degree of regulation via the RFCA and the DPP. The method, to determine the final decision on the facility type, will be discussed during the Joint Scoping Meeting (See Chapter 3) held between DOE and the LRA. The type will be finalized after the submittal and subsequent review and

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concurrence (or non-concurrence) of Reconnaissance Level Characterization Report (RLCR) (See Chapter 4) by the LRAs.

Following are "excerpts" out of the DPP for each Facility "Type". Project Managers will need to review the facility type, using the "Anticipated" Facility Type List provided in Appendix B-2, prior to the Scoping phase of planning.

**Decommissioning Program Plan**

***Type 1*** ***Buildings free of contamination***

"Free of contamination" means that the following conditions have been met:

- Hazardous wastes, if any, generated and/or stored in the facility have been previously removed in accordance with CHWA and RCRA requirements and any RCRA units have been closed or, if partially closed, the parts of the unit within the facility have been certified as being clean closed; (It will be insufficient to have RCRA units simply in a RCRA stable configuration.); AND
- Routine surveys for radiological contamination performed pursuant to the RFETS radiological protection program show the building is not contaminated; AND
- Surveys, if required, for hazardous substance contamination show the building is not contaminated, AND
- If any hazardous substances including polychlorinated biphenyls (PCBs) or asbestos are present, they are an integral part of the building's structural, lighting, heating, electrical, insulation or decorative materials. As such, they are not "contamination."

Since the presence or absence of physical or safety hazards, while important to the Site in terms of how to proceed with a building's disposition, is not a determinant of whether it will be regulated pursuant to RFCA, DOE will not consider such hazards in categorizing a building as Type 1.

***Type 2*** ***Buildings without significant contamination or hazards, but in need of decontamination***

Type 2 buildings contain some radiological contamination or hazardous substance contamination. The extent of the contamination is such that routine methods of decontamination should suffice and only a moderate potential exists for environmental releases during decommissioning. Some buildings in this category, e.g., 865, 886 and 991, are now undergoing, or will undergo deactivation in certain areas prior to decommissioning. The mere fact that deactivation will occur does not push a building into the Type 3 category. Most buildings where industrial operations occurred that used hazardous substances or radioactive materials or both will fall into this category.

***Type 3*** ***Buildings with significant contamination and/or hazards***

Type 3 buildings contain extensive radiological contamination, usually as a result of plutonium processing operations or accidents. Contamination may exist in gloveboxes, ventilation systems, or the building structure. Site personnel expect those buildings that were used for plutonium component production, along with the major support buildings for such production, will have significant contamination, and are therefore expected to be classified as Type 3. These buildings include:

| | | |
|---|---|---|
| · 371/374 | · 559 | · 771/774 |
| · 707 | · 776/777 | · 779 |

### 2.1.2 Project Generated RFCA Decision Documents

Prior to Decommissioning, certain authorizing RFCA Decision Documents must be in place before physical work activities can begin. The type of authorizing documents that must be in place is dependent on the facility's classification via the RFCA and the DPP. In accordance with RFCA Part 7, all parties have agreed to participate in the consultative process to reach consensus on the scope and content of the RFCA Decision Documents, including any required changes that may be proposed during the course of the project.

Once a facility's classification or "type" is established and approved via approval of the Reconnaissance Level Characterization Report (RLCR) which is a RFCA Decision Document, the "type" ***does not*** change unless discovery of unknown or additional contaminants. A consultative process is used to determine if the facility type needs placed in a higher classification via the RFCA and DPP.

> ***Note:*** *The "Initial" Facility Type List* ***SHALL*** *only be used as an initial indicator and* ***not*** *as a final decision of the facility type. This decision is made jointly in consultation with DOE and the LRA.*

The three types of authorizing Decision Documents, via RFCA, that have been established for Decommissioning activities are discussed further in Chapter 5 and listed below:

- Proposed Action Memorandum (PAM), *(used for Type 2)*
- Interim Measure/Interim Remedial Action (IM/IRA) *(used for Type 2)*
- Decommissioning Operations Plan (DOP) *(used for Type 2&3)*

*Note: The DPP is used as the decision-making tool for Type I facilities.*

For **Type 1** facilities, the RLCR is sent to DOE who agrees/disagrees with the recommendations in the RLCR. DOE then sends the RLCR to the LRA. The results of the characterization provide the LRA with sufficient knowledge of the characteristics of the facility for them to concur that no additional Decision Document is required. Development of a RLCR is further discussed in Chapter 5 and Appendix D-1 and D-2 of this Manual.

For **Type 2** facilities, the RLCR is sent to DOE who agrees/disagrees with the recommendations in the RLCR. DOE then sends the RLCR to the LRA. The LRA either concurs or not with the facility "type" recommendation and the proposed decision document (e.g., Interim Measure/Interim Remedial Action (IM/IRA) or Proposed Action Memorandum (PAM). RFCA Decision Documents required for Type 2 facilities, e.g., PAM, IM/IRA, and their approval processes are further discussed in Chapter 5 of this Manual.

> ***Note:*** *If RFFO, as a RFCA party, disagrees with the LRA decision, then DOE/RFFO* ***may*** *elect to go into dispute resolution.*

For **Type 3** facilities, the RLCR is sent to DOE who agrees/disagrees with the recommendations in the RLCR. DOE then sends the RLCR to the LRA. The LRA either concurs or not with the facility "type" recommendation and the proposed decision document (i.e., Decommissioning Operations Plan (DOP) or an Interim Measure/Interim Remedial Action (IM/IRA). DOP and IM/IRA RFCA Decision Documents and their approval processes are further discussed in Chapter 5.

***Note:*** *Additional non-RFCA authorizing documents may also be necessary before decommissioning can commence. These documents include, but are not limited to, Nuclear Safety Authorization Basis (AB) documents, e.g., Basis of Interim Operations (BIO), Facility Safety Analysis Reports (FSARs), as defined in the Nuclear Safety Manual and as described for Facility Disposition purposes, in Chapter 5.*

## 2.2 FACILITY DISPOSITION PLANNING PROCESS

Facility Disposition encompasses a wide range of activities ranging from deactivation and decontamination to final demolition or release of the building for reuse. To ensure the most cost-effective and timely accomplishment of these activities it is imperative that planning and execution of these various activities be accomplished in parallel to the maximum extent. Planning and execution must move toward a well-integrated parallel approach where all of these activities ***may*** occur at any time, simultaneously, within the facility, under the appropriate regulatory decision-making framework.

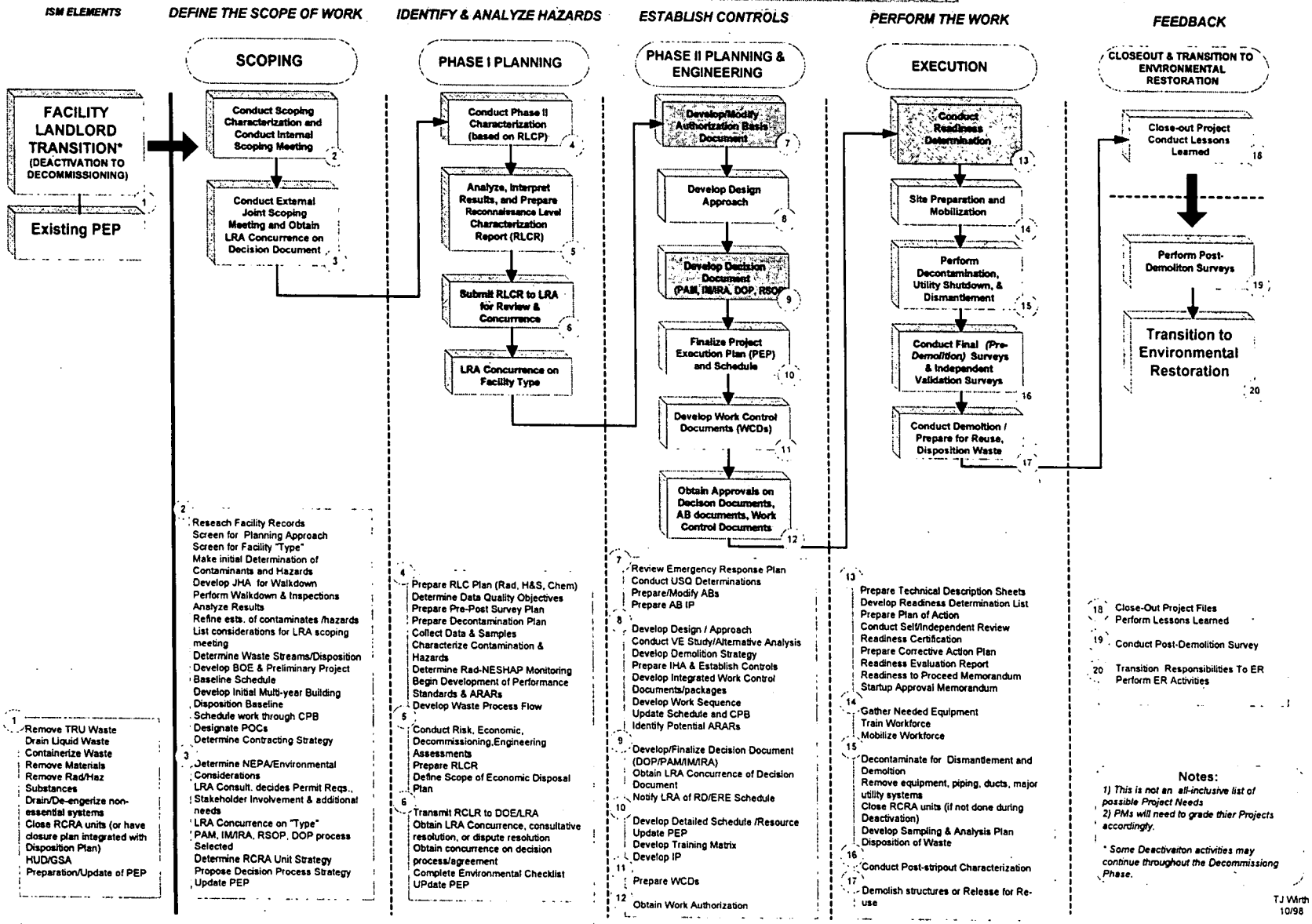
Figure 2-2 provides a high-level process flowchart of the Facility Disposition process. Figure 2-3 provides a more detailed look at some of the key processes depicted in Figure 2-2. Following the figures are a discussion of each of the Facility Disposition Planning Elements and Phases, including a discussion of the "Execution" strategy phases as depicted in Figure 2-6, seen later in this Chapter. However, the primary focus will be on the Planning Phases leading up to the execution and closeout of the activity. These Planning Phases include:

- Scoping,
- Phase I Planning,
- Phase II Planning & Engineering,
- Project Execution *(Decommissioning: Decontamination, Dismantlement, Demolition, Mothballing),*
- Project Close-out, and
- Transition of Landlord Responsibilities, and Transition to Environmental Restoration.

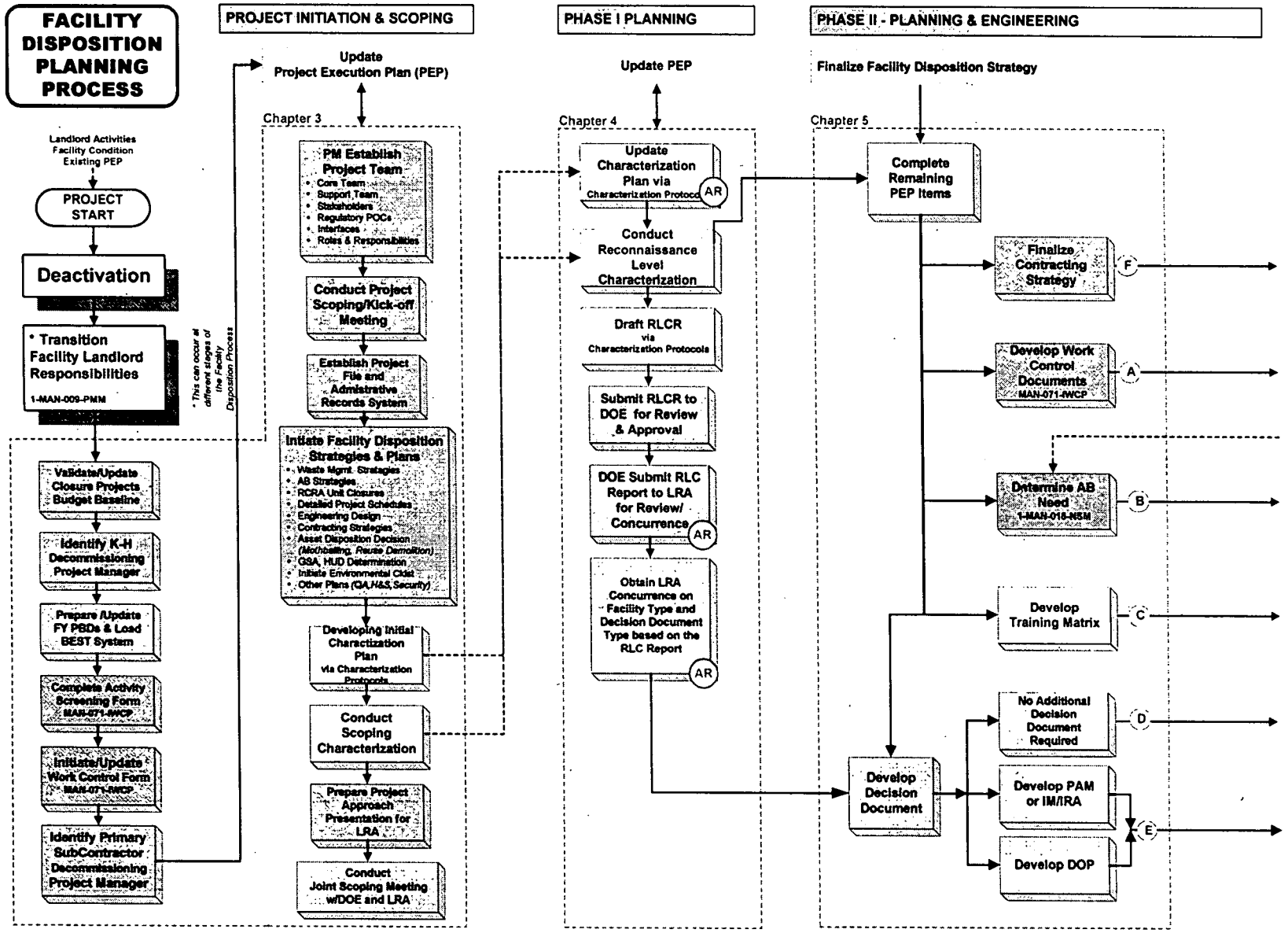
To execute the scope of work, the Facility Disposition project is separated into six major activities: major hazard reduction, equipment dismantlement, decontamination, utility system shutdown, facility demolition, and site remediation. The strategic end points, to distinguish between deactivation and decommissioning, will be achieved through this approach, however the activities will be combined in a single Facility Disposition project, via the PEP. Figure 2-6, provided later in this chapter, gives a conceptual view of the relationship of these activities.

# FACILITY DISPOSITION SCHEMATIC

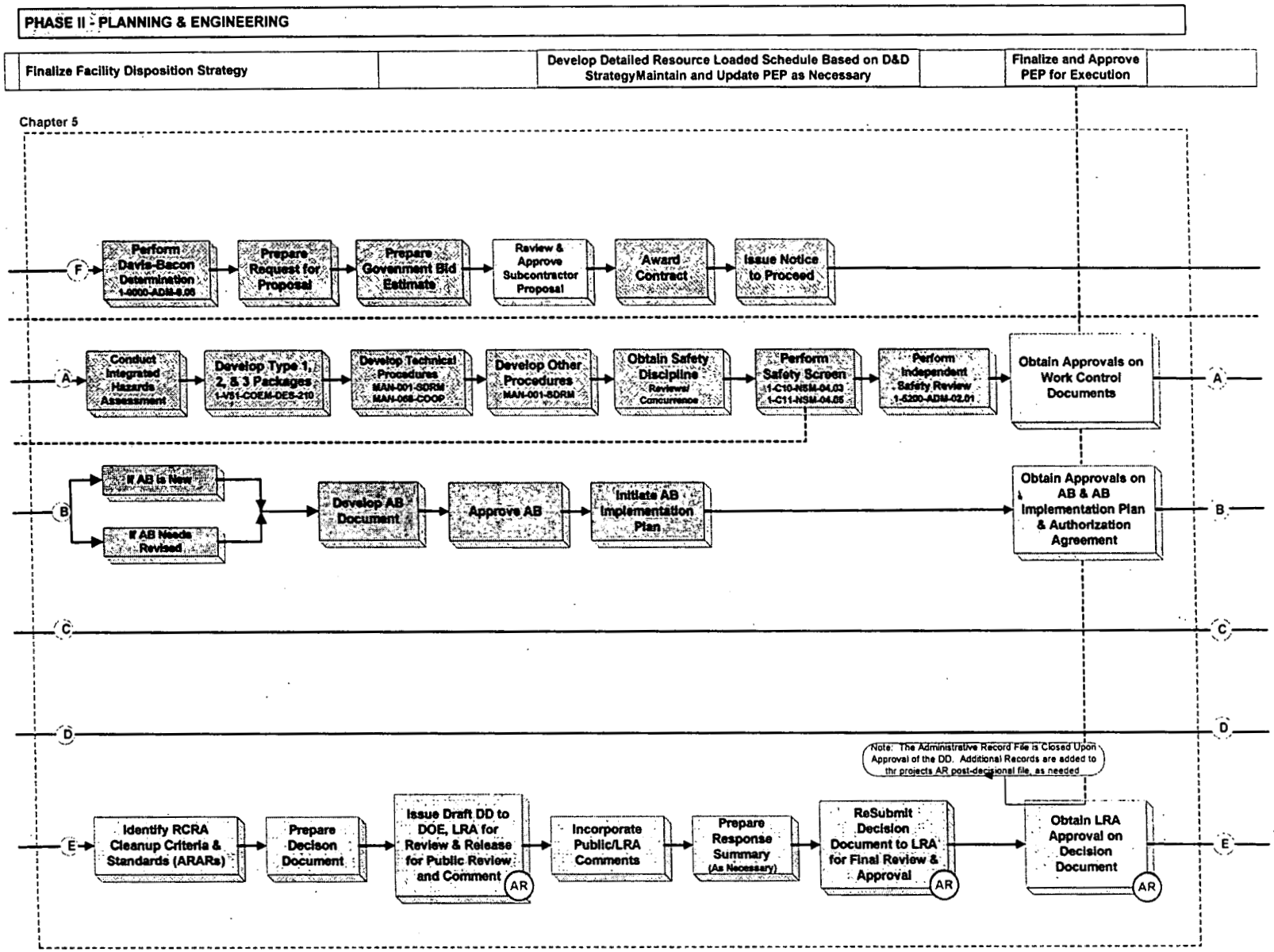
Figure 2-2



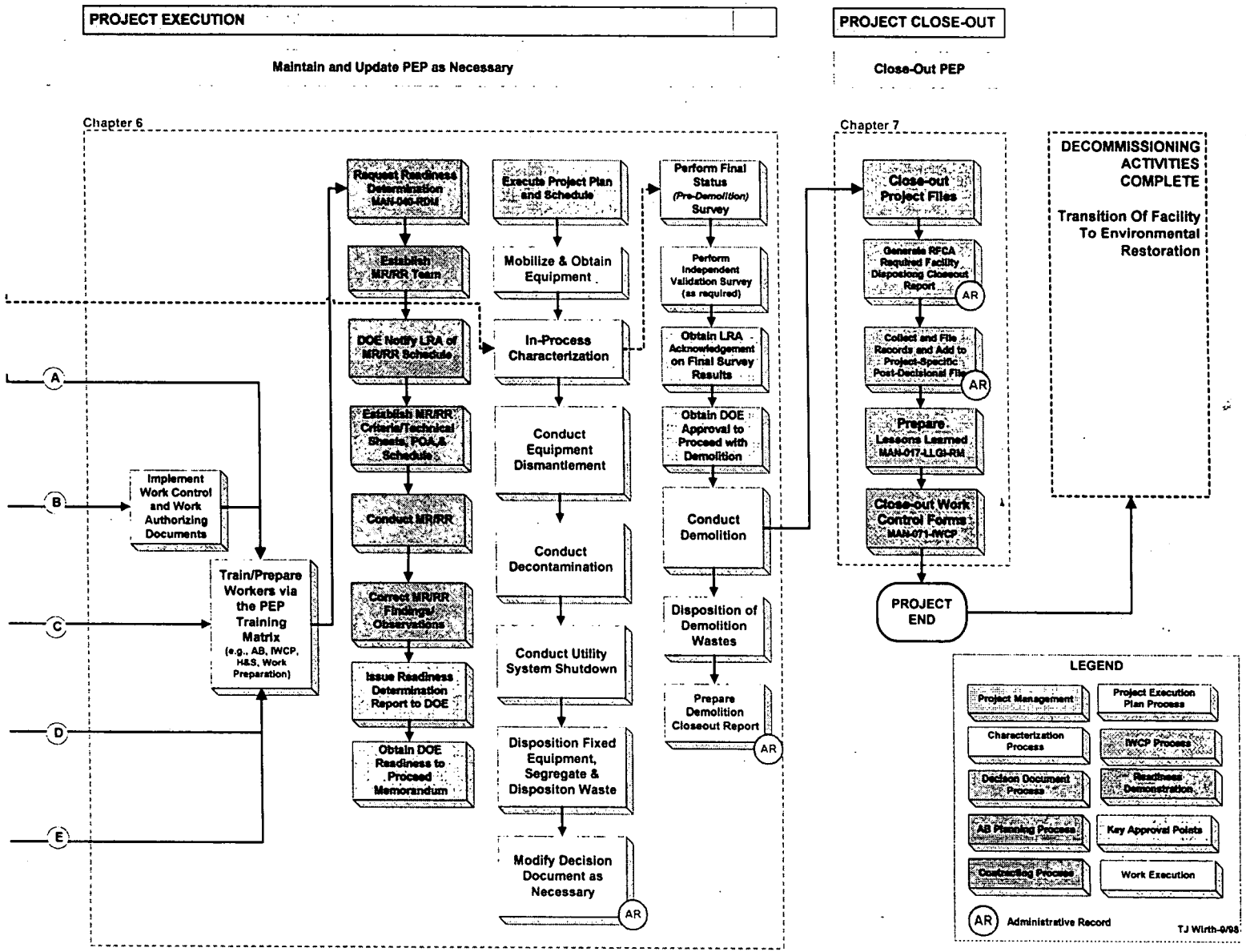
## Figure 2-3 - Detailed Facility Disposition Process Flow Chart (Page 1)



# Figure 2-3 - Detailed Facility Disposition Process Flow Chart (Page 2)



# Figure 2.3 - Detailed Facility Disposition Process Flow Chart (Page 3)



## 2.3 PLANNING PROCESS PHASE DESCRIPTIONS

Figure 2-2 provides a high-level process flow diagram of the Sites' Facility Disposition Planning Process. A brief description will be provided in this Chapter of the Manual of each major planning phase, with more detailed discussions following in the appropriate Chapters of this Manual. Additional lower-level process flow diagrams are provided, as appropriate, in the corresponding Chapter and in Figure 2-3 to aid the reader in understanding the Facility Disposition Planning Process.

It is important to note that the process flow diagrams, and subsequent process element descriptions, reflect current knowledge today. As the Site becomes more familiar in performing Facility Disposition activities, the process flow diagrams provided in this Manual ***may*** need to be revised to reflect new knowledge, external regulations, and internal requirements.

The planning elements of the Facility Disposition process are provided below. A brief description of each of these elements is also provided below, and discussed in more detail in the appropriate Chapter of the Manual.

### 2.3.1 Scoping

Scoping refers to the process of defining or providing a comprehensive description of the project to be performed. The scope of work refers to the project or activity baseline that defines technical objectives and general approaches in terms of design, execution, and performance requirements, criteria, and characteristics derived from what the project is intended to accomplish. (See also Chapter 3)

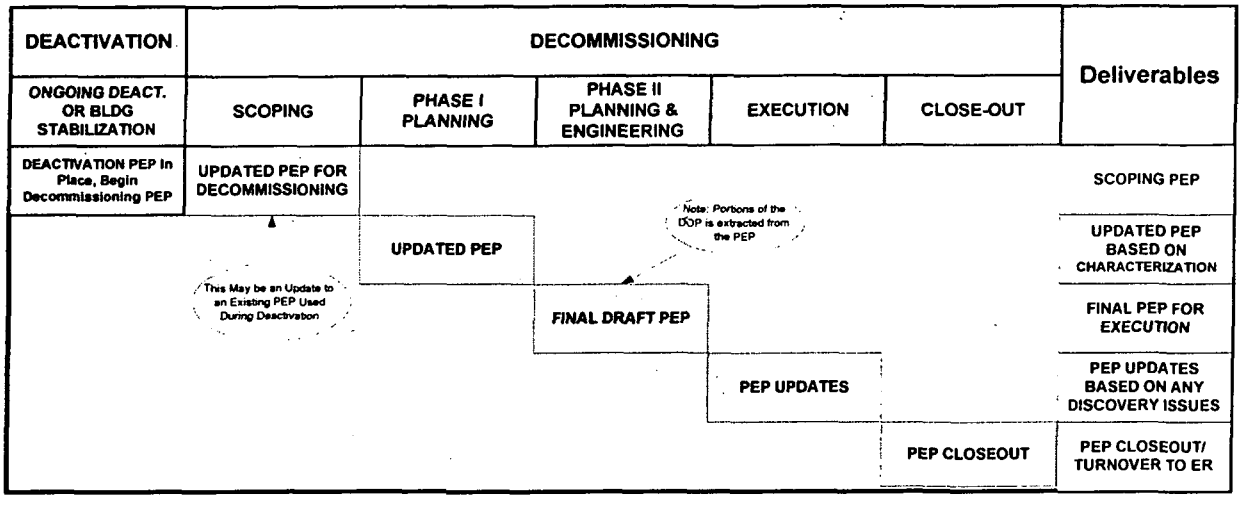
Upon completion of the Project Team's initial scoping session, a presentation outlining the scope of the project will be presented for discussion and consultation with DOE/RFFO and the Lead Regulatory Agency (LRA) in the Joint Scoping session. The purpose of the Joint Scoping meeting is to coordinate RFCA and other requirements (e.g., Integrated Monitoring Plan, DNFSB, Special Projects, etc.), attain agreement on the project scope (action) and the type and content of the decision document. Joint Scoping Meeting invitees typically include: Kaiser-Hill Company, L.L.C. and its principle subcontractors, DOE/RFFO, EPA, CDPHE, and as appropriate, the Defense Nuclear Facilities Safety Board (DNFSB).

> *Note: The LRA may choose to invite other regulatory agencies, as needed, to support the joint scoping session.*

**Project Execution Plan (PEP) – A Key Process Element**

The Facility Disposition PEP is considered a "living" document that is maintained up-to-date throughout the life cycle of the project as depicted in Figure 2-4. The PEP is prepared for the entire Deactivation/Stabilization Phase and updated throughout the Decommissioning Phase. At the end of the Decommissioning Phase, it is then turned over for Site Remediation. It presents key information on what the project is (scope), and how much information is required (Phase I, II Planning), and how long it will be performed (Execution). It communicates and educates people both inside and outside of the project team about expectations and work processes. The PEP is "graded" to the project and contains planning deliverables and summarizes the results of the detailed project development and engineering activities.

## PROJECT EXECUTION PLAN (PEP)
**Figure 2-4**




Closure Projects Integration Facility Disposition PEPs are approved by the K-H Manager of D&D Projects and Construction, or designee. Facility Disposition Projects not assigned to CPI are to have their PEP approved by the responsible manager and concurred with by the Division Manager, D&D Projects and Construction. The PEP **Should** be graded to the level commensurate with the project, for instance, a PEP for disposition of B779 would require a much greater level of planning, assessment, plans, details, etc, than the disposition of a construction trailer, or a facility that contained no radiological or non-radiological hazardous materials. A PEP Template is provided in Appendix C-1.

> ***NOTE:*** *Project Managers* ***Should*** *use the template format provided for in Appendix C, identifying with a "NA" those sections not applicable to their project, and grading the level of detail for each section commensurate with the project needs. This ensures consistency and standardization of the process and products, and facilitates the review and approval cycle. For Type 1 Facilities, it is expected that the PEP be no more than a few pages. See Chapter 2 for further PEP expectations for Type 1 facilities.*

**PROJECT EXECUTION PLAN ELEMENTS BY PHASE**

**SCOPING**

- Asset Disposition Strategy
- Type 1 Facility Disposition Checklist (as appropriate)
- Decision Document approach
- Initial review of ARARs, and identification of administrative vs. substantive requirements
- Initiate Environmental Checklist (including air and water)
- Organization and responsibilities, etc.
- Pre-conceptual scope, schedule, and budget estimates
- Project Contracting strategy
- Project Waste Management strategy
- Proposed Authorization Basis strategy
- Proposed Milestones
- Proposed project activities and technical approach
- RCRA Unit Closure approach
- Scoping Characterization
- Specific proposed execution methods, where unique or important to project decision making
- Well-defined scope, budget, and estimate for Phase 1 Planning
- Consent order and other agency agreement requirements

**PHASE I – PLANNING**

- Conceptual scope, schedules, and budget estimates.
- Defined scope, budgets, and estimate for Phase 2 Planning
- Description of expected engineering and IWCP work packages, including scope, cost, and schedule,
- Engineering Assessments
- Health and safety impacts,
- More Detailed Hazards Characterization
- Proposed milestones
- Proposed project activities

**PHASE II – PLANNING AND ENGINEERING**

- Final Health & Safety Plan
- Final detailed budget and schedule
- Final Procurement & Contracting strategy
- Final Waste Management Plan
- Final Engineering Design Packages & Work Control Packages
- Approved AB document.

**EXECUTION**

- Updates as necessary to keep the document current due to in process surveys and "discovery" issues that ***may*** require document revisions.

**CLOSEOUT**

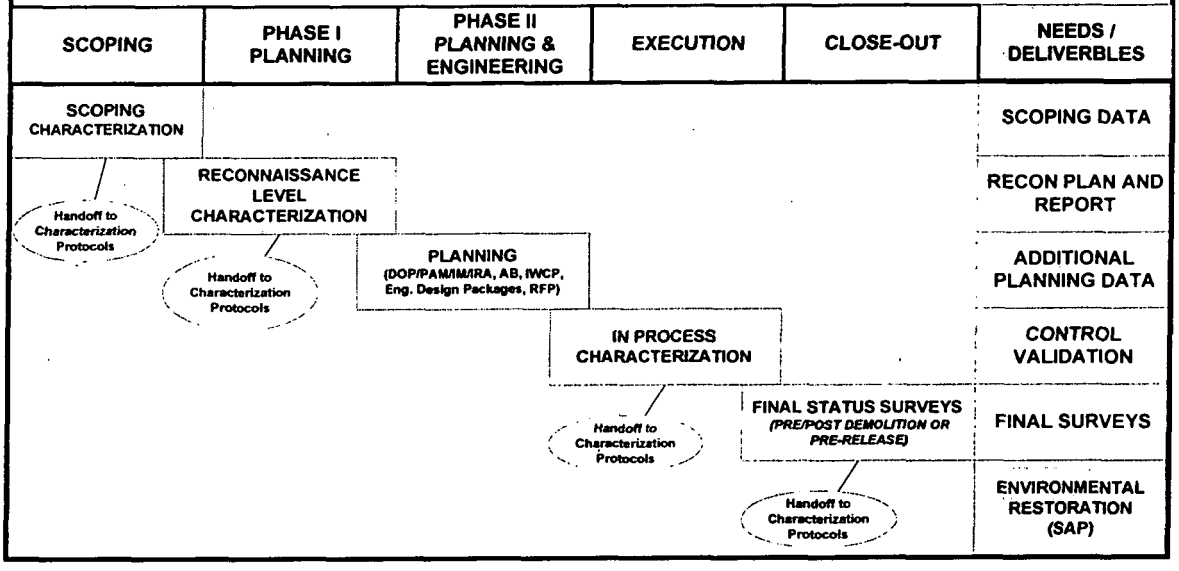
- Final review of the Matrix(s) to ensure completion/collection of all project documents, and plans, etc.

The Project Strategies, Plans, and Deliverables Matrix contained in Appendix A-1 provides a listing of the various plans, documents, and reports, that *may* be necessary for a given project. Project Managers **SHALL** review the checklist and ensure those items that are necessary and appropriate for their project are completed prior to and during each planning phase, and then during execution. The PEP is updated during each phase of the project, including Execution. At project end, the PEP is closed out and placed in the Project Files.

## 2.3.2 PHASE I PLANNING

There are two characterization activities that occur in the Phase I Planning: 1) the Reconnaissance Level Characterization Report (RLCR), and 2) further identification of additional hazards, activities, requirements, engineered systems, etc. This additional information is needed to support further planning activities in Phase II Planning & Engineering that are beyond what is needed for the RLCR.

**FACILITY DISPOSITION CHARACTERIZATION PROCESS**
**Figure 2-5**




For purposes of Facility Disposition, characterization is a continual process throughout the disposition of the facility and is accomplished over several phases as depicted in Figure 2-5. If the characterization changes the environmental checklist, it **SHALL** be reviewed and updated appropriately. Characterization has two primary purposes. The first is the identification of hazards necessary to establish controls to protect the worker, the public, and the environment. This is accomplished through a facility/activity-specific reconnaissance level characterization plan (RCLP) to the extent necessary, to prepare, submit, and obtain concurrence from the LRA, the Reconnaissance Level Characterization Report (RLCR), which contains the results of the characterization. The RLCR provides the basis for the final recommendation to DOE on the facility "type", i.e., Type 1, Type 2, or Type 3.

> ***Note:*** *If the LRA* ***does not*** *non-concur with DOE's decision within fourteen (14) days, no further Decision Document is needed for decommissioning of Type 1 facilities.*

The collection of characterization data required for the RLCR follows the guidance provided for in the Decontamination and Decommissioning Characterization Protocol. The Characterization Process described within that document ensures a consistent and systematic approach in obtaining characterization data regarding the radiological hazards, and non-radiological hazardous materials in and around the activity/facility. It uses a Data Quality Objective (DQO)

process that identifies type, quality, and quantity of data. The DQO process helps the user to define DQO qualitative and quantitative statements that accomplish the following:

- Clarify technical and quality objectives,
- Define the appropriate type of data, and
- Specify tolerable levels of potential decision errors needed to establish a basis for quality and quantity of data for decision-making.

The second purpose is to collect any additional data, e.g., written documentation, walkdowns, or physical sampling, necessary for developing and finalizing the various authorizing work documentation, e.g., PEP, DOP, IWCP, AB, etc, finalized in Phase II Planning, and as needed for project execution. Examples of additional data elements are:

- Engineering & Design Data
- Other facility concurrent and ongoing activities
- Utility Systems
- Equipment

## DETAILED CHARACTERIZATION ELEMENTS

**Scoping Characterization** - occurs during the Scoping Phase and includes:
- Collection of all historical documentation regarding the facility mission, operations, and abnormal events (e.g., spills), including agency records
- Current and documented radiological survey reports and Radiological Deficiency Reports
- Health and Safety routine surveillance reports
- Environmental and waste reports
- Authorization Basis documents (Site, SAR, BIOs. FSARs, BFOs, etc)
- Incident reports
- Prior facility resident/operator interviews
- Other informational reports or data, etc.

**Reconnaissance Level Characterization** - occurs during Phase I Planning and includes:
- Identification of radiological hazards, e.g., stored radioactive sources, contaminated areas, SNM, etc.
- Identification of non-radiological hazardous RCRA-Regulated/Listed materials, e.g., Beryllium, Asbestos, Polychlorinated Biphenyls (PCBs), lead and other heavy metals, etc.
- Identification of Physical Safety Hazards

**Planning & Engineering *("Characterization")*** - ***may*** be initiated during Phase I, but is completed during Phase II Planning and includes:
- Identification of engineered systems, e.g., ventilation, electrical, process, structural, criticality, radiological systems as needed for both the conduct of the activity(s), Authorization Basis issues, and development of a strategy for determining the best approach for system removal, especially in relation to radiological and non-radiological contaminants hold-up.
- Identification of concurrent activities

**"In-Process" Characterization** - occurs during the Project Execution Phase and includes:
- In-Process surveys for radiological and non-radiological hazardous materials *(per the Protocols)*
- Physical hazards, e.g., noise, confined spaces, excessive heights, electrical, etc. necessary for continuing facility disposition activities.

**Final Status Survey *("Characterization")*** - occurs at the end of the Project Execution Phase and prior to Facility Demolition and includes:
- Final Status Survey *(Pre-Demolition Survey)*
- Independent Verification/Validation Survey *(Note: DOE/RFFO will determine if Required)*

**Environmental Restoration *("Characterization")*** - occurs prior to Environmental Disposition and includes:
- Post-Demolition Survey of the remaining concrete Pad
- Final Surveys of various waste forms prior to shipment to designated waste disposal areas

### 2.3.3 PHASE II PLANNING AND ENGINEERING

Maintaining a safety awareness culture is enhanced through the use of the philosophy and principles of the Integrated Safety Management System (ISMS). These principles are essential in the design and development of the various planning documents listed below. It is incumbent on the Project Manager and Project team to maintain a focus on these principles during development of work control documents, and to follow the guidelines provided in the IWCP on Team Consensus in the event of disagreements on safety issues and controls. Phase II Planning and Engineering encompasses all the essential activity planning to be completed before work execution.

The K-H Team is also committed to protecting the environment and ensuring regulatory compliance. This is accomplished through implementation of the Environmental Stewardship program, which includes environmental management systems and tools defining environmental and programmatic requirements to measure and verify compliance. It is the Project Manager's responsibility to ensure that these systems and tools are incorporated as applicable at the project level.

Appendix A-1 provides a comprehensive list of the various types of documents that ***may*** be required for a given project.

The "Project Strategies, Plans and Deliverables Matrix" (Appendix A-1) identifies:

1) The phase of planning in which the item **Should** be initiated
2) Whether it's a Project Milestone
3) The type of document or record it is, e.g., Controlled, Administrative Record, or project
4) The Implementing Procedure and Driver document, e.g., RFCA, DPP, DOE Order, and
5) Planned and Actual Date of Completion.

It is important to note that many items on the list are developed simultaneously (See Chapter 3, Figure 3-3 Project Teams). Additionally, many have similar or identical information in the body of the document. All attempts **Should** be made to ensure consistency, accuracy, and minimization of duplicative information throughout all documents. Attempts **Should** also be made to minimize the number of Work Control Documents to aid the Project Team in providing training, placement on Plan-of-the-Day (POD) and execution of work.

The Project Team establishes the necessary and appropriate items listed on the Project Strategies, Plans, and Deliverables Matrix (Appendix A-1), and the Document Review/Approval Matrix (Appendix A-1) is completed prior to execution. The K-H PM documents concurrence with this list. This ensures that all necessary planning elements and work control documents are in place for the specific scope of work prior to Execution.

### 2.3.4 EXECUTION

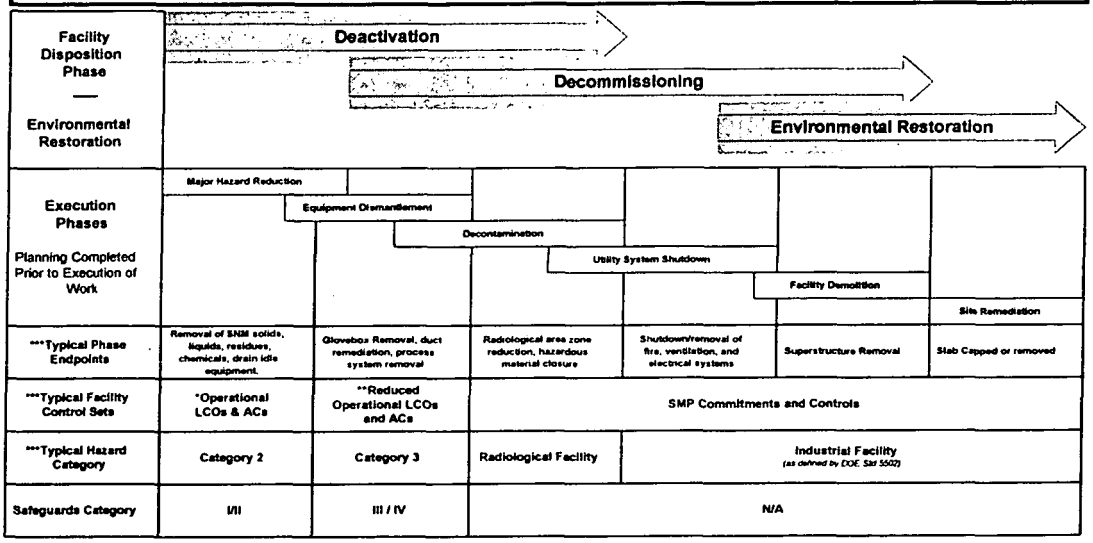
After all appropriate regulatory and operational documentation for the specified scope of work is prepared and approved, and the performing subcontractor has trained all appropriate personnel to the appropriate level of qualification, the performing subcontractor Project Manager ensures that the objectives for operational readiness are satisfied before proceeding.

*Important: In order to collect costs for current CPB and future advanced planning purposes, the Project Manager uses the Work Breakdown Structure WBS Dictionary described in Chapter 3 in building their detailed plan and schedule:*

Work proceeds through the Execution as shown in Figure 2-6 (See also Chapter 6, Execution). However, prior to the actual physical work, and after development of work control documents, mobilization and site preparation activities commence. Site Preparation activities include; mobilization, isolation of building services, installation or removal of services as needed for the project, and asbestos abatement, as appropriate. Dismantlement includes, but is not limited to, removal of process equipment and the equipment and services that directly support it. In-process characterization is performed during Dismantlement with the resulting documentation being formatted to support the Final Status *(Pre-Demolition)* Survey. The surveys generated during building surface decontamination are compiled with the appropriate in-process characterization data to form the Final Status *(Pre-Demolition)* Survey. Demolition includes the physical work to demolish the facility to its final configuration.

**EXECUTION APPROACH FOR FACILITY DISPOSITION**

FIGURE 2-6




* *LCOs - Limiting Conditions of Operation ACs - Administrative Controls*
** *Set Includes: LCOs - HVAC/Filtration, Fire Supression, ACs - Work Control, Inventory Control, Combustible Control, Emergency Reponse*
*** *Application is based on a Graded Approach*

Decommissioning may begin either in an entire building or a part thereof, when deactivation is complete. In non-nuclear facilities, decommissioning ***may*** begin as soon as the building's mission is at an end. In some buildings, decommissioning ***may*** run concurrently with deactivation. Some activities described in Phase II ***may*** occur either during the Deactivation or Decommissioning Phase. These activities include: waste chemical removal, disposition of excess property, reduction of chemical hazards and the placement of RCRA units into RCRA stable condition or their closure.

The scope of work to accomplish Facility Disposition ***may*** be broken down into discrete worksets. Although there is no requirement to break the work into "worksets", it is recommended for facility disposition projects. These sets combine all required activities for completion of Facility Disposition. Segregation of the sets into deactivation and

decommissioning categories provides for differentiation between regulatory requirements and the work flow process. All sets **Should** have specific endpoints or workset boundaries assigned that will define the phase of completion of the task.

The final step in project execution prior to close out is the transition to Environmental Restoration. The Project Team initiates the transition of the remaining footprint to Environmental Restoration.

### 2.3.4.1 DEACTIVATION ACTIVITIES

Deactivation activities remove the cluster of facilities from operation and prepare them for turnover for decommissioning or conversion/release to a new use meeting applicable safeguards, hazardous category or other completion criteria. Specific deactivation activities include: IWCP development, removal of hazardous and non-hazardous materials, holdup removal and emptying storage areas to reduce fire loading. Activities ***may*** include inventory and removal of unattached hazardous materials from the facilities and immediate areas, such as hazardous chemicals, beryllium and gas cylinders. RCRA unit closures ***may*** be completed. An economic disposition determination is made for unneeded property.

Deactivation activities reduce the potential liability and risks posed by excess contaminated equipment, RCRA issues and general hazards. Deactivation also results in additional baseline cost reductions by eliminating or further reducing the surveillance and maintenance activities currently required. Other activities may include the shipping of materials and waste to further deactivation within these facilities. It also ***may*** include removal of contaminated tooling that is easily removed and removal of clean equipment, tanks and gloveboxes.

Completion of representative activities listed above would be the starting point for decommissioning work. Activities such as waste chemical removal, disposition of excess property, chemical hazard reduction and placement of RCRA units into RCRA stable condition or their closure ***may*** occur either during deactivation or decommissioning. Example activities falling under Deactivation include those listed in the Deactivation Activities Table.

**DEACTIVATION ACTIVITIES**

- Clean up and remove office furniture, miscellaneous excess equipment (to PU&D)
- RCRA closure of units not required for Decommissioning or place in RCRA stable condition
- Deenergize and secure HVAC units not needed for decommissioning
- Disassemble equipment and remove stored SNM material
- Disposition collections of records (under custodianship of Records Source or abandoned)
- Drain liquid waste and processing systems (tanks, processes, steam, chemical, etc.)
- Empty storage cabinets
- Isolate and contain material that ***may*** migrate
- Removal of containerized waste and materials; package and stage waste for disposal , Removal of all TRU waste, defined as materials in excess of 100 nanocuries per gram, Properly label waste prior to disposal
- Reduce surveillances
- Remove combustibles, fire loads
- Relocate classified tooling and parts
- Remove equipment internal to gloveboxes
- Remove hazardous chemicals and materials
- Remove radiological check sources
- Wipe down gloveboxes, fix contamination and seal gloveports

### 2.3.4.2 DECOMMISSIONING ACTIVITIES

The following list provides examples of decommissioning activities that help delineate the portion of the disposition continuum that is regulated as decommissioning under RFCA and covered by a Decision Document, e.g., DOP, a PAM, or an IM/IRA. (See Chapter 5 and Appendix E for more details regarding Decision Documents) The sequence of execution of these activities is dependent upon project specific needs and requirements.

**DECOMMISSIONING ACTIVITIES**

**EQUIPMENT DISMANTLEMENT**

- Removal or size reduction of equipment, piping, ducts, hoods, gloveboxes, and major electrical components (e.g., strip out),
- Remove process vessels
- Remove glovebox off-gas and ventilation ducting legs
- Remove Zone I HVAC system, and ensure ambient air monitoring is in place
- Remove process pumps
- Collect and disposition remainder of files

**DECONTAMINATION (FACILITY/ACTIVITY/EQUIPMENT)**

- Characterization of hazards, contaminants, or process systems requiring decontamination and strip-out,
- Decontamination in preparation for release for reuse or dismantlement,
- Remove hazardous and radioactive contamination to minimize hazardous/radioactive material dispersion during demolition and minimize high cost waste
- Removal of radioactive hot spots and hazardous substances
- Remove non-load bearing walls to minimize high cost waste
- Waste minimization activities associated with decommissioning, e.g., segregation of sanitary and non-sanitary wastes.
- Remove remaining asbestos, lead, mercury, etc.

**UTILITY SYSTEM SHUTDOWN**

- Removal or size reduction of utility systems
- Isolate utility systems to the facility, e.g., steam, water, sewer, fire, diesel generators, UPS, and grounding/lightning protection, pressurized air, liquid effluent discharges, inert systems ($N_2$, Ar), and $O_2$ analyzers
- Deactivate HVAC, criticality, and building chemical/gas support systems
- Remove remaining HEPA filters
- Remove/reconfigure electrical switch gear
- Remove remaining operational system that supported previous phases
- Remove accumulated waste and remaining office furniture

**FACILITY DEMOLITION**

- Final radiological and non-radiological surveys of the physical structure(s), (e.g., Pre and Post Demolition Surveys/Final Status Surveys)
- Demolishing the physical structure
- Monitor for releases during building demolition *(Note: This **may** also be done by ER)*
- Disposal of rubble/wastes

### 2.3.4.3 Environmental Restoration Activities

Prior to the initiation of decommissioning activities, monitoring efforts (monitoring of surface water, groundwater, ecological, and air) are required to establish the baseline conditions. This effort is coordinated with the K-H Waste and Remediation Operations (WRO) - Restoration Projects and Environmental Systems and Stewardship (ESS) organizations. To establish good baseline conditions, this effort **Should** occur very early in the decommissioning scoping phase and **SHALL** be incorporated into the Integrated Monitoring Plan (IMP) update.

The K-H WRO (Restoration Projects) and ESS organizations **Should** be integrated into decommissioning project scoping to develop an understanding of the project, such as type of contaminants expected in the building and to: decide whether adequate monitoring is in place to establish the baseline conditions; to decide what part of the structure will be left at the end of decommissioning; and to define the anticipated role of the Restoration Projects at the end of decommissioning.

Following decommissioning, the area will either be evaluated for the environmental restoration (ER) ranking or have no further action justification documentation prepared.

The following list provides examples of environmental restoration or remediation activities. The Execution Strategy Phase activities for Environmental Restoration include:

**SITE REMEDIATION EXAMPLES**

- Monitor site for any environmental impacts
- Cap building slab to contain hazardous materials
- Core Sampling of the building/facility for Environmental Restoration
- Removal of the building/facility
- Disposition of Concrete and Soils

*Note: Core Sampling for establishing a baseline may need to be started prior to demolition.*

## 2.4 CLOSE-OUT

Preparation for the closeout of all projects begins in the planning phase with definition of project specific acceptance and closeout criteria included in the PEP and the identification and subsequent development of other planning and work control documents.

In the Closing-Out of the project, there are several activities that take place. These include the generation and/or closeout of:

- Partial And Complete Subcontract Close-Out Form *(Appendix G-1)*
- Project Beneficial Occupancy Notice *(Appendix G-2)*
- Project Acceptance And Transfer Form *(Appendix G-3)*
- Suggested Subcontractor Performance Evaluation *(Appendix E-2)*
- Project Final Closeout Form (FPCO) *(Appendix G-4)*
- Project Lessons Learned Report
- Final Facility Disposition Decommissioning Closeout Report

- IWCP, including all Engineering documentation and associated work control forms, e.g., Radiological Work Permits, excavation work permits, hot work permits, etc.

Chapter 7 and Appendix G provide more details and discussion on the types of reports typically generated during the project and which ones ***may*** need to be closed out. Appendix A-1, the Project, Strategies, and Plans Matrix provides the mechanism to identify what documents were generated and need to be collected and closed-out for the specific project.

> ***Note:*** *As part of Close-out actions, it is important to ensure that the Administrative Record is complete.*

## 2.5 FACILITY TRANSITION AND LANDLORD ACTIVITIES

As part of the facility disposition process, there ***may*** be a need to either transfer ownership of the facility or change the operational use of the facility, or both. "Facility Transition" is a formal process that has been documented and institutionalized in Rocky Flats Closure Project Procedure, 1-PRO-209-RPTP, Real Property Transition Procedure (RPTP). This procedure provides specific requirements, instructions, guidance, and example checklists for conducting facility transition.

The Transition process requires the selection of a Facility Transition Team Manager and Facility Transition Team. The Team ensures that the required transition process is effectively and efficiently completed in accordance with the RPTP, including verification that sufficient documentation and checklist items have been completed, reviewed, and approved by all responsible parties prior to final turnover of the facility.

The following are some of the major activities that are conducted as part of the transition effort. For Type 1 Facilities, the Type 1 Facility Checklist is completed (See Appendix B-1).

> *Note: More detailed instructions are included in the 1-MAN-009-PMM, Real Property Transition Procedure (RPTP).*

- Conduct initial facility walk-through
- Perform comprehensive facility inventory (e.g., operations, records, radiological issues, chemical hazards, etc.)
- Transfer accountable inventory (if applicable)
- Complete transition checklists
- Conduct turnover walk-through
- Resolve conflicts
- Document facility status (limitations, strengths, and deficiencies)
- Develop the Facility Transition Final Report
- Notify affected parties of the transfer
- Transfer of Life Cycle Funds via the Baseline Change Proposal process or another approved transfer method.
- Maintain and disposition all records in accordance current Records Management Guidelines.
- Complete Memorandum of Understanding (MOU)

***NOTE**: All efforts **Should** be made to coordinate these activities with the Facility Disposition Project Team so that efficiencies can be gained and duplication of characterization activities do not occur.*

For facilities anticipated to be, or initially listed in Appendix B-1 as a Type 1 Facility, the current Landlords **SHALL** determine if any of the following conditions exist, or are expected to occur:

- The facility is expected to be transferred to another department, or
- The facility is currently unoccupied by personnel, or
- The facility is expected to become unoccupied for a period longer than 3 months with no new mission identified.

*Note: For Type 2 and 3 facilities, use the PEP to define transition strategies.*

If any of the above conditions exist, then the current landlord **SHALL** complete the following items **PRIOR** to transitioning the facility to the new Landlord.

*Note: Completion of the checklist ensures that the new Landlord is provided with sufficient knowledge about the current conditions of the facility prior to transition. It also ensures that the facility is placed in a safe condition, including establishing monitoring and/or surveillance requirements as appropriate, in readiness for Decommissioning at a later date.*

1. Conduct a Walkdown of the facility and complete the Type 1 Facility Checklist (Appendix B-1).
2. Review the Type 1 Facility Disposition Checklist with the D&D Program Office.
3. Produce the initial "graded" Project Execution Plan (PEP) for the facility. It is expected that this PEP will be substantially graded and **SHALL** contain the following sections as a minimum:

   - Type 1 Facility Checklist (Appendix B-1)
   - Personnel Relocation Plan (if facility is not already vacated)
   - A brief description of the facility Walkdown
   - A description of any hazards identified, controls necessary for those hazards and a brief plan to remove those hazards.
   - A brief plan for removal of any records and equipment.
   - A budget for completing these activities.
   - A schedule showing the timing for these activities and indicating when decommissioning is expected to begin.
   - A discussion of the regulatory compliance status and any unusual or distinctive regulatory issues associated with the facility.

4. Submit the Type 1 Facility Checklist and the "graded" PEP to the D&D Projects and Construction office for review and approval
5. Perform activities in accordance with the approved PEP.

Note: Once the Project/Facility is funded for Decommissioning, the Project is expected to be planned and executed in accordance with the requirements of this Manual.

## 2.6 TRANSITION TO ENVIRONMENTAL RESTORATION

Prior to the initiation of decommissioning activities, monitoring efforts (monitoring of surface water, groundwater, and air) are required to establish the baseline conditions that exist in the Industrial Area. This effort is coordinated with the K-H's WRO (Restoration Projects) and ESS organizations. To establish good baseline conditions, this effort should occur very early in the decommissioning scoping phase and to the extent practicable, be incorporated into the IMP update.

The K-H WRO (Restoration Projects) and ESS organizations should be integrated into the decommissioning project scoping to develop an understanding of the project for specific issues. Examples of these issues include:

- to agree on the types of contaminants expected in the building,
- to decide whether adequate monitoring is in place to establish the baseline conditions,
- to decide what part of the structure will be left at the end of decommissioning, and
- to define the anticipated role of the WRO (Restoration Projects) and ESS organizations at the end of decommissioning.

Following decommissioning, the area will be evaluated for the ER ranking or have no further action justification documentation prepared.

# CHAPTER 3
# PROJECT INITIATION AND SCOPING

## 3.0 PURPOSE

The purpose of this chapter is to present the requirements and guidance for performing activities in the project initiation and scoping phase of the project. The objective of this phase is to initiate the project and to get agreement on a defined scope of work for the project from DOE and the LRA.

## 3.1 OVERVIEW

Project initiation and scoping is the first step in the facility disposition process. The key steps in this phase involve initiating the project, establishing the project team and records system, conducting the scoping characterization, defining the project scope, preparing or updating the PEP, and conducting the joint scoping meeting. The expected end result of this phase is to get agreement from DOE and the LRA regarding the defined scope of work for the project.

The first part of the scoping phase involves several activities related to project initiation. These activities include updating the Closure Project baseline (CPB) budget; identifying the KH project manager; preparing the Basis of Estimate (BEST) inputs, Project Baseline Document (PBD)s, and FY work plans; completing the Activity Screening Form (ASF) and initiating the required Work Control Forms (WCFs); and identifying the principal subcontractor project manager.

The PEP defines the scope of work for the project. If the PEP does not exist, the PEP is prepared in this phase with a defined scope of work. If the PEP has already been prepared, it is updated in this phase. The scope of work for the project is defined in terms of the specific project objectives, engineering design approaches, work execution details, and performance objectives/requirements/criteria.

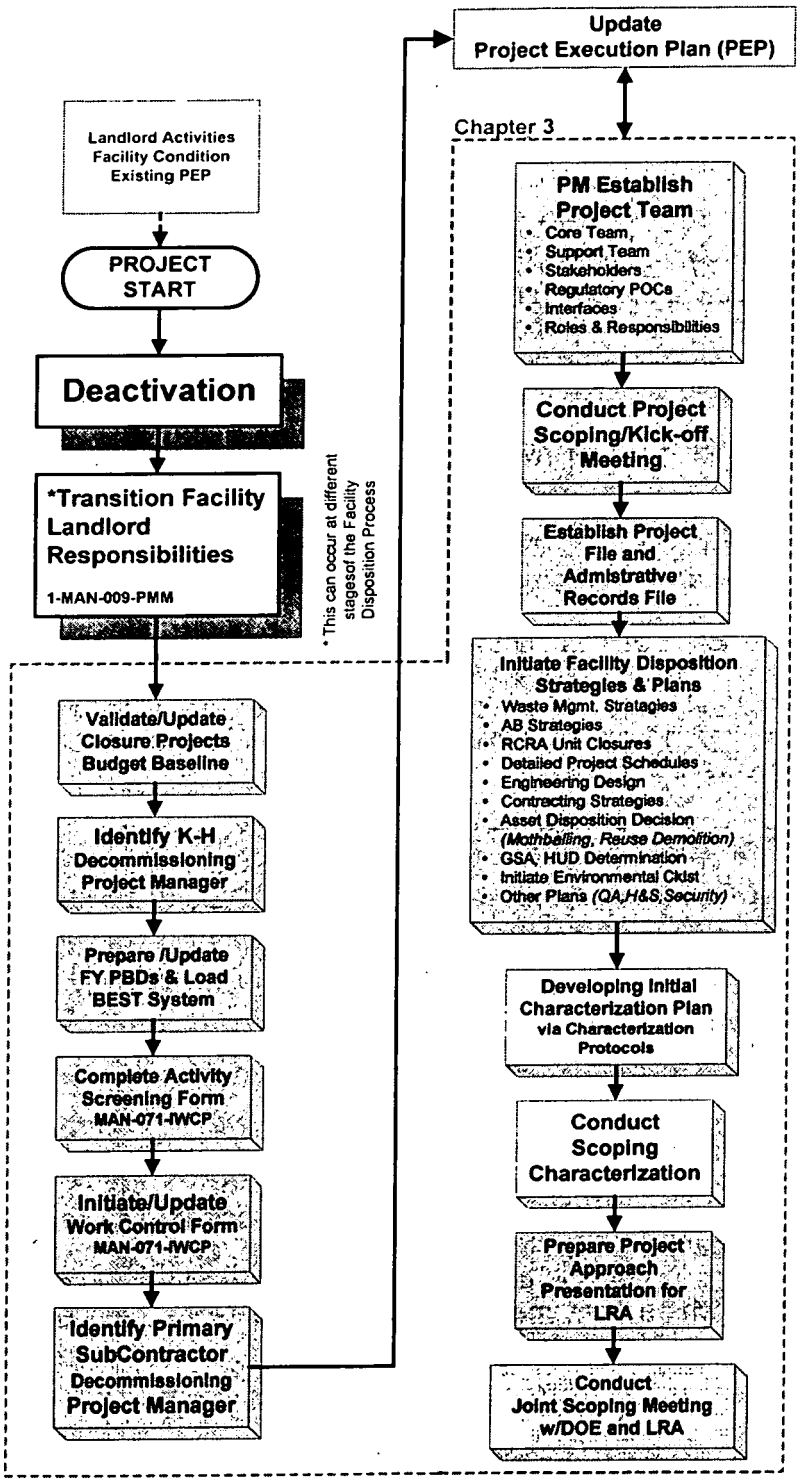
At the completion of the project initiation and scoping activities, the following will be completed:

- project scope well defined and agreed upon with DOE and the LRA,
- project team established with defined responsibilities,
- RFCA decision document and facility type defined,
- scoping characterization documented, and
- PEP prepared or updated.

## 3.2 PROCESS LOGIC FLOW

The activities involved in the project initiation and scoping phase are shown in the process logic flow diagram (Figure 3-1). The project initiation activities, shown in the left column, flow sequentially from top to bottom. However, some of these activities can actually be performed in parallel. During this phase the PEP is prepared or updated, and the scoping characterization is completed. The second column in the process flow diagram shows the activities leading to the joint scoping meeting, where agreement is reached on the defined scope of work for the project.

## Figure 3-1
## PROJECT INITIATION AND SCOPING
## PROCESS FLOW DIAGRAM



## 3.3 REQUIREMENTS

### 3.3.1 Project Initiation

#### 3.3.1.1 Identify KH Project Manager

The applicable Vice President responsible for the facility disposition project appoints the KH Project Manager/Director.

#### 3.3.1.2 Update CPB and Prepare FY Work Plan (PBDs and BEST Input)

The CPB establishes the overall scope, budget, and schedule for the project at a high level and provides the basis for the work in each FY work plan. The CPB is a living document that has been established based on RFCA and agreements with DOE, EPA, and CDPHE. If necessary, the CPB is updated in this phase. Based on the CPB, the KH project manager prepares/updates the project baseline documents and loads the data into the BEST system. Using this information along with the budget call guidance and other applicable documents, the FY work plan is updated for each year of the project.

#### 3.3.1.3 Complete ASF and WCFs

The KH project manager or designee completes the Activity Screening Form (ASF) for the project to determine the level of planning required in accordance with the IWCP Manual, MAN-071-IWCP. In addition, the ASF will assist the project manager in determining the types of safety and environmental discipline SMEs that are needed for the project team. The ASF is completed based on the scope and project definition provided in the FY work plan with assistance from select SMEs, as required. The level of planning required is based on the hazards, uncertainty, experience, and complexity of the work to be performed. It is not appropriate for every specific activity in the project to be screened using the ASF. Therefore, the following guidance is provided regarding the definition of a "project" and an "activity" to determine when the ASF is applied.

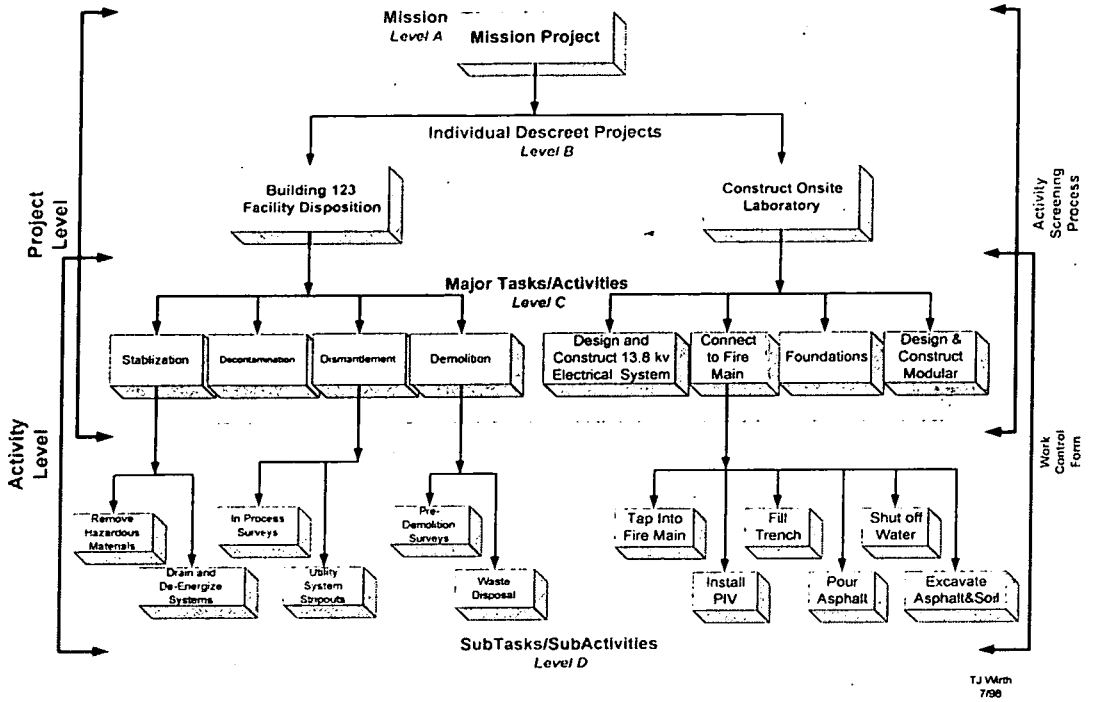
A "Project" is defined as a specific plan or design that consists of several major tasks/activities to be completed, e.g., D&D Building 779. An "Activity" is defined as an individual unit of work for performing a specific function, e.g., place excess equipment in storage container, decontaminate a glovebox. The ASF is applied primarily at the second level, as depicted in figure below. This will ensure that an appropriate level of planning is applied to the entire project. In some cases, it ***may*** be necessary to apply the ASF at the third level, which is the "Major Task/Activity" level. However, this is necessary only when the activity is a stand-alone activity and not associated with a mission/project, e.g., a major repair to a failed piece of equipment. Figure 3-2 provides a visual representation of the various levels of activities that typically exist within a project.

The KH project manager or designee completes a Work Control Form (WCF) for the project and additional WCFs for the major tasks or activities that require individual or separate planning teams, as shown on the figure below.

#### 3.3.1.4 Identify Principal Subcontractor Project Manager

The KH Contractor Technical Representative (CTR) for the facility disposition project provides concurrence on the appointed principal subcontractor project manager selected and identified by the principal subcontractor manager responsible for the facility disposition project.

**PROJECT vs. ACTIVITY**
**Figure 3-2**




## 3.3.2 Project Scoping

### 3.3.2.1 Prepare/Update PEP

Based on the information and results from the other activities performed in this phase, the principal subcontractor project manager **SHALL** prepare the PEP for the defined scope of work of this project. If the PEP already exists, or has already been prepared for the deactivation tasks prior to decommissioning, the principal subcontractor project manager **SHALL** update the PEP in this phase to reflect the facility disposition tasks. The PEP template in Appendix C-1 provides guidance regarding the specific information that **Should** be included in the PEP.

Establishing specific requirements for project controls and reports ensures continuity, integration, and consistency in communicating and documenting the current status and progress of projects. Individual reporting requirements and control criteria are established and defined within the PEP on a graded approach by each project. Project controls and reports are intended to facilitate the following:

- Early identification of potentially damaging trends and occurrences
- Minimization of management time necessary for detailed review by providing
- Uncomplicated presentation of relevant information.
- Clear representation of problem significance and required actions.
- Focus on relevant issues.
- Reasonable cost of data acquisition and reporting through the utilization of available project information supported by common commercial PC hardware and software.

All formal reports documented for facility disposition and construction projects **Should** include the following basic information: Official project title as it appears on the authorizing document; Project

WBS identification number; Report date that report information is based on; and, the date the report was printed. In addition to containing the above basic information and using a graded approach, facility disposition and construction project schedules **Should** clearly indicate all scheduled activities, forecasted completion of the scheduled activities, a "Time Now" line, and the Critical path activities. As applicable, all project Internal, Performance Measure, RFFO, and RFCA milestones that fall within the span of the schedule **Should** also be clearly indicated on the schedule.

The following project controls and reports are the minimum periodic reports that **SHALL** be required for facility disposition and construction projects. Additional reports ***may*** be required as determined by authorization, funding, project specific requirements, management needs, and good business practices. This would include, but not be limited to, Variance Reports, Milestone Status Reports, safety statistics, corrective actions, subcontractor performance evaluations (see Appendix G-1), etc. All regular and project specific reports **Should** be identified in the PEP indicating, at a minimum, the report title, reporting frequency, and report primary distribution.

**PROJECT CONTROLS AND REPORTS**

**Project Performance Report**

A Project Performance Report (PPR) **SHALL** be prepared for active facility disposition and construction projects on a monthly basis by the KH Project Manager. At a minimum, the PPR provides project specific information regarding the following items:

- Cost and schedule status/variances
- Status of the projects critical path activities
- Required corrective actions and their status
- Accomplishments/achievements
- Issues/concerns
- Status of performance measures
- Status of RFFO and RFCA milestones
- 60-day look-ahead issues
- The project's Estimate At Completion (EAC).

**Monthly Accrual Report**

An Accrual Report **SHALL** be prepared on a monthly basis for active facility disposition and construction projects. Following review and approval by the KH Project Manager the Accrual Report is submitted to KH Accounting. This Accrual Report provides current information for development of the project's actual cost to date, as well as, the obligated or incurred costs.

**Table of Values**

The single most important factor in the calculation of performance variances (e.g., Schedule Variance (SV), Cost Variance (CV)) is the "Earned Value" or Budgeted Cost of Work Performed (BCWP). The KH Project Manager **SHALL** prepare, as part of the PEP, a "Table of Values" for active facility disposition and construction projects. The Table of Values assigns a life cycle dollar value of budgeted cost of work scheduled (BCWS) to each scheduled activity. On a monthly basis, the KH Project Manger determines the percent complete for each scheduled activity in the PEP. The period and year to date BCWP for the scheduled activity(s) is derived from this monthly determination of percent complete.

During project execution the following construction related reports **SHALL** be required, if the facility disposition project involves any construction or deconstruction activities.

**REQUIRED CONSTRUCTION REPORTS**

**Construction Work In Progress Report**

A Construction Work in Progress (CWIP) Report listing all active facility disposition and construction projects **SHALL** be prepared monthly and provided to K-H Accounting. The CWIP Report provides tracking information on planned and actual construction and project completion dates.

**Procurement Report**

A Procurement Report **SHALL** be prepared for active facility disposition and construction projects providing a listing of all planned, in-progress, and completed procurement activities. This report identifies pending procurement activities and includes data to track those activities to completion. This report is used by Procurement to plan and track workload. This report is also used by the Construction Management Group within the D&D Projects Division to plan and oversee the administration of construction contracts and subtasks and, plan project craft and support personnel requirements.

**Daily Construction Reports**

During active construction, starting with the Notice to Proceed and ending with the Final Project Close-out, a daily construction report **SHALL** be prepared and distributed. The general form and content of this report is shown in Appendix C-2. The Daily construction report **SHALL** be prepared by the construction manager and delivered to project team members at the close of each business day.

**Monthly Personnel Resource Usage Report**

The construction manager **SHALL** prepare a monthly manpower report as shown in Appendix C-3. This report will be provided to the D&D Project Office by the fifth working day of the Month. Construction tasks being performed by an AECCM subcontractor are not included in this report. The AECCM subcontracts contain similar reporting requirements.

**Construction Progress Photos**

During active construction the Project Manager **SHALL** document job progress by photographing significant changes in job. On minor projects, photos **SHALL** be taken at least once during a job. On significant projects, photos **SHALL** be taken at start of each project and at least weekly thereafter. The copies of the photos **SHALL** be printed with one copy going into the project file and two copies being provided to the D&D Project Office. All photos **SHALL** be captioned as shown in Appendix C-4.

### 3.3.2.2 Establish the Project Team

The K-H and Principal Subcontractor Project Managers **SHALL** establish the project team, which consists of a core team and a support team(s). The team members and organizations are explicitly listed with names, titles, and responsibilities for the project or a specific phase or phases. Contractual relationships and the reporting and work package/cost account authorities and responsibilities are also specified. The core team consists of the project manager and several key members who are expected to participate in all aspects of the project planning and execution. The support team or teams consist of the work planners, engineers, and safety discipline SMEs planning specific parts of the projects (e.g., major tasks/activities).

The makeup of the core team and the project planning/support team(s) is dependent upon the project scope, the hazards expected to be encountered during the performance of the work, the uncertainty of the project/activity scope and hazards, and the complexity of the project/activity. The previously completed ASF provides the project manager with a first cut of the SMEs that **Should** be considered while establishing the planning team(s). The core team **Should** solicit involvement of the support team as early as possible in the project, especially in the initial project meetings. Typical and representative (but not all inclusive) team members for the core team and the support team are shown below.

**Typical Core Team Members**

- KH Project Manager
- Principal Subcontractor Project Mgr.
- Project Engineer (lead)
- Construction Management (lead)
- Facility Manager (or representative)
- Facility Operations (lead)
- Cost Estimator/Project Cost Analyst
- Safety Analyst (lead)
- Administrative Support
- Environmental Compliance Project Manager

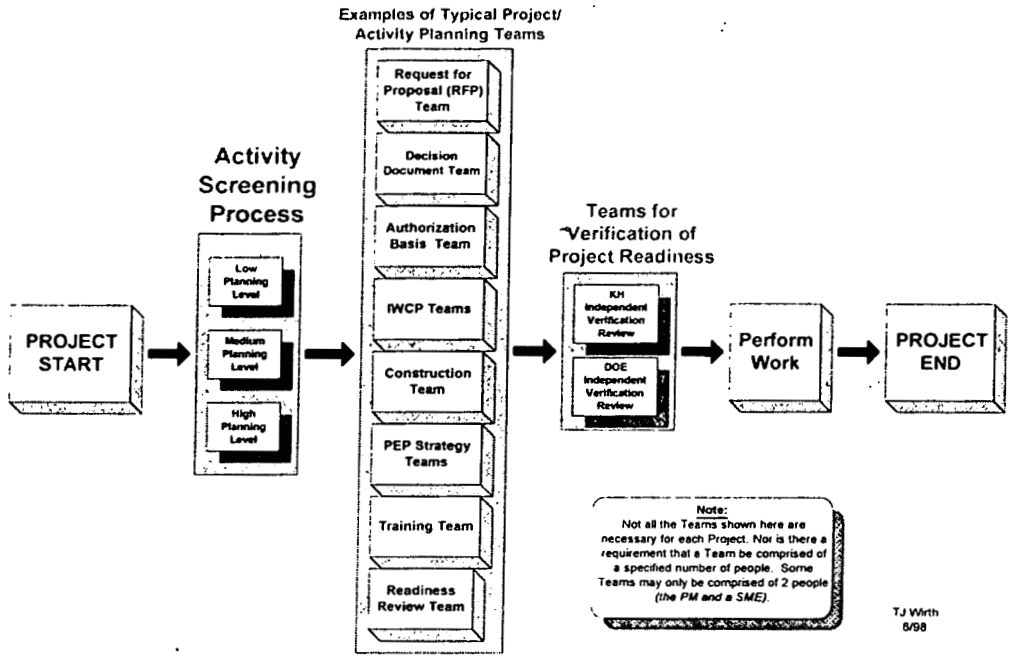
**Typical Support Team Members**

- Engineering/Engineering Support
- Crafts (Hourly Workers)
- Waste Management
- Emergency Preparedness/Management
- Nuclear/Criticality Safety
- Quality Assurance
- General Counsel (legal)
- Operations Support
- Environmental Restoration
- Radiological & IHS Specialists
- Procurement
- Transportation
- Safeguards and Security

It is important to note that as the facility moves through its planning and execution phases membership of the team ***may*** vary with the needs of the project. However, in order to ensure continuity and efficiency of the project, the core team **Should** be identified and assigned for the duration of the project.

In any given project, there ***may*** be more than one team necessary to plan the work. Figure 3-3 provides an overview of the various types of teams that ***may*** be established to ensure all the work associated with the project/activity is adequately anticipated and ready to be performed.

PROJECT / ACTIVITY
TEAM RELATIONSHIPS
Figure 3-3




### 3.3.2.2.1 Team Consensus and Conflict Resolution

Cooperation and negotiation are key to a successful team effort. However, there are times when conflicts arise. The following approaches ***may*** be used to reach consensus before, and when, a conflict arises within the project team:

- Define the criteria for team decision-making. That is, will it be a consensus decision where all must agree, majority rule, deciding when to elevate to division director for help in resolution. etc.. Note: The lack of a defined process for resolving conflicts ***may*** result in the team not reaching agreement,
- When a conflict arises, individually and jointly define the problem.
- Understand the "laws" and other external requirements.
- Actively listen and be open-minded and flexible, keeping in mind individual and team needs and goals, not positions.
- Keep other perspectives in mind. Don't place blame, but rather, look for mutual benefits.
- Clarify differences, look for alternatives or options.

***Note:*** *Guidance for resolution of conflicts with the LRA is contained in RFCA.*

### 3.3.2.2.2 Team Member Roles and Responsibilities

The KH Project Manager is responsible for the overall project budgeting, funding authorization, and project oversight. The specific contractual responsibilities of the KH and Principal Subcontractor Project Managers will be identified in the appropriate documents. The KH Project Manager is the single point of contact for Kaiser-Hill organization interface with the project.

Some projects require multiple teams for specific or unique activities. In those cases where multiple teams are required, single points of contact **Should** be identified as interface points between teams to disseminate information and to establish team hierarchy.

The KH Project Manager, supported by the core team, identifies, documents, and resolves organizational turnover issues relating to project responsibilities for a facility. The project team coordinates with the facility transition team if the transition occurs during the facility transition project in accordance with the Real Property Transition Procedure. The facility transition acceptance checklist prepared by the facility transition team is reviewed by the project team. Any administrative or Authorization Basis changes for turnover to the project team are identified by the KH Project Manager (see Chapter 2, Section 2.5 Facility Transition).

For each established team, the teams roles and responsibilities **Should** be identified and documented to include the following:

**TEAM MEMBER ROLES AND RESPONSIBILITIES**

- Identification of stakeholders
- Agreement on working schedules
- Management commitment to allow team members to participate
- Selection of team members for all aspects of the activity
- Priority of maintaining team continuity and minimizing team member turnover
- Identification of training requirements/qualifications
- Identify specific roles and responsibilities for each team member
- Identify part-time SMEs for areas with weak coverage by full-time team members

### 3.3.2.2.3 Team Member Qualifications

Team members **Should** have a combination of individual and collective experience and education to provide adequate expertise about the project/activity under consideration. The team can include members from the primary and principal subcontractors, including floor-level workers and SMEs where appropriate, and where such inclusion is required, to reach quality decisions about safety and hazard controls. The combination of expertise on the team has the capability to:

- Provide a detailed analysis of the hazards inherent in the project/activity,
- Use the appropriate level of work planning (e.g., Low, Medium, and High) to establish an adequate set of controls for the safe performance of work, and,
- Based on the results of the hazards analyses, determine and express the controls in a way that can be communicated to those performing the work.

The members of the project teams **SHALL** be qualified and empowered by the organization which they represent to provide prompt response and input in technical and policy areas related to that organization's responsibilities. Upon completion of the process, the team membership, deliberations, and decisions are documented and included in the project/activity document files. Instructions for completing the Team Credentials Report are provided in the IWCP, Activity Screening Process.

#### 3.3.2.2.4 Regulatory Interface

The DOE, the Colorado Department of Public Health and the Environment (CDPHE), and the U.S Environmental Protection Agency (EPA) **Should** have identified points of contact, and will typically have an "observer" status within the project team. They **Should** be contacted and invited to routine project meetings and informal discussions of documents.

The project team **SHALL** interface with the Kaiser-Hill D&D Projects & Construction organization to identify regulator issues and develop regulatory strategy. The Kaiser-Hill D&D Projects & Construction organization **SHALL** interface with the RFCA Project Coordinator to facilitate resolution of regulatory issues. The Kaiser-Hill Project Manager is the single point of contact for their project in facilitating resolution of regulatory issues and is responsible for following the Site policy in the preparation of contact records.

### 3.3.3 Initial Project Kickoff Meeting

The project team **SHALL** address and discuss the following items at the initial project kickoff meeting. Some of these issues ***may*** not be applicable to all projects.

**PROPOSED AGENDA ITEMS AND ISSUES**
**PROJECT KICKOFF MEETING**

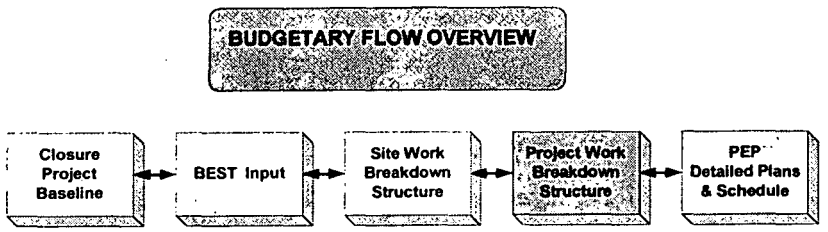
- Scope of Project (WBS, Endpoints, Milestones, Interfaces, Uncertainties, Key Strategies)
- Project Organization (Chart, Responsibilities, and Site and Regulatory Interfaces)
- Facility Transition Status (if needed)
- Facility Characterization Status.
- Potential deviations from the Site baseline identified to date.
- Status of budget and relevant BCPs for planning and execution.
- The acceptance checklist and any administrative or Authorization Basis changes for turnover.
- Deactivation or other items to be performed outside the scope of RFCA, and other activities occurring within the same building, but outside of the project scope or which impact the project.
- Functions or equipment moving or vacating the building, and any timing or schedule implications.
- Initial key requirements, and how final requirement sets will be identified.
- Significant uncertainties that currently exist that could affect the performance of the project/activity (including project/activity characterization information).
- Unique or different strategies to be considered by the project.
- Initial decision document strategy. This ***may*** include facility type; initial waste management strategy; initial contractual approach; initial equipment disposition strategy; and other initial approaches for key activities. This item **Should** include responsibilities of individuals in this process, and regulatory interfaces.
- Potential project performance criteria, types of performance measures, milestones, and critical decision points.
- Records Management
- Meeting minutes **SHALL** to be taken and distributed to applicable organizations and any issues evaluated or analyzed and identified as action items.
- Schedule Milestones/Performance Measures

### 3.3.4 Establish Records Management/Configuration Control System

The establishment of project files, record management, and configuration control methods **Should** be initiated early in the project. They are maintained and followed throughout the project in

### 3.3.5 Develop WBS/ WBS Dictionary

The Project Work Breakdown Structure (WBS) and WBS Dictionary provide the project framework for definition, management, and control of the project, and show how the project fits together. The Project WBS is extended from the relatively generic Site Closure Project Baseline (CPB) Work Breakdown Structure level 5 and level 6 elements to include all of the building-specific activities required to disposition the building. The Project WBS **SHALL** be incorporated into the PEP. An overview of the budgetary flow process from the CPB to the WBS is shown below.




Every project has some level of a Work Breakdown Structure (WBS) included in the CPB. The K-H and Principal Subcontractor Project Managers **SHALL** ensure that:

- The WBS and WBS Dictionary be extended beyond the levels included in the Sitewide WBS.
- The WBS is provided to D&D Projects review and approval. Any change to the existing Site WBS is approved through the Baseline Change Proposal (BCP) process.
- The WBS Dictionary identifies appropriate activity endpoints, or identifies when the appropriate endpoint will be defined (i.e. after which other project activity is completed).
- The WBS Dictionary includes other programs (including deactivation activities) which are occurring concurrently in the building, or explicitly describes the interfaces between activities of different programs.
- The project uses the Facility Disposition Project Schedule Template and aligns the project(s) activities with the WBS. The WBS is required to standardize cost collection for facility transition projects.
- The project milestone, cost and schedule data tie to the project WBS.

The following Decommissioning Work Breakdown Structure (WBS) Dictionary **SHALL** be used for all facility disposition projects, unless granted an exception by D&D Projects:

> ***Note:*** *If a facility disposition project contains more than one building, then the WBS is used for each separate building.*

**Decommissioning Work Breakdown Structure (WBS) Dictionary**

**... 04.01 Planning and Engineering, Building XXX Decommissioning**

This element covers all the task specific direct labor, equipment, materials, supplies and subcontract (A5X) costs associated with the Planning and Engineering for the decommissioning of Building XXX. The scope of this includes, but is not be limited to, activities: such as: the preparation of the Project Execution Plan (PEP), Decommissioning Operations Plan (DOP), Proposed Action Memorandum (PAM), Interim Measures/Interim Remedial Actions Document (IM/IRA), RCRA Unit Closure Plan, Health and Safety Plan (HASP), Integrated

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accordance with the PEP, the Project QA Plan/Manual, and the Site and Principal Subcontractor QA Plans/Manuals (if a project-specific QA Plan/Manual is not developed). These files and methods support regulatory compliance, project management and control, legal and DOE Order Compliance, communication, product quality and verification of successful completion. Project Closeout includes closeout of project files and disposition of records and files.

The project team establishes a project configuration control and document management process, as described below. The project team develops a project document hierarchy to assist in the planning process. The Matrix of Project Strategies, Plans, and Deliverables, Appendix A-1, **Should** be used to establish what documents are needed for project files, controlled documents, and administrative records.

DOCUMENT MANAGEMENT PROCESSES

**Administrative Record**

*Identify documents, which are retained and provided as part of the formal project-specific* administrative record file in accordance with Section 4.4 of the RFCA Implementation Guidance Document and 1-F78-ER-ARP-001, CERCLA Administrative Records Program.

**Project Files**

Official and permanent files are established and maintained by the KH Project Manager. The project files **will** be properly identified, protected, transmitted, distributed, retained, retrieved, maintained, and dispositioned based on the requirements established in the PEP and consistent with 1-V41-RM-001, Records Management Guidance for Records Sources. Engineering documents are controlled in accordance with Site Engineering Requirements Manual (SERM). Examples of typical project files are engineering documents, drawings, and calculations; and Division 1 Specifications. The Document Control and Records Management system **Should** be provided with documents to provide *referenceable information for other programs.*

**Meeting Minutes/Contact Records**

Establish an approach for development and distribution of meeting minutes. This approach **Should** include standard distribution lists and formats. Formal correspondence **SHALL** be maintained in accordance with 1-11000-ADM-003, Correspondence Control Program. Meeting minutes with the regulators (LRA) are documented in the AR file.

**Document Development and Review**

Project document development and review is to conform to the Site Document Requirements Manual (SDRM) unless approval is received in writing from the Manager, D&D Projects.

**Project Controls and Reports**

Project controls and reports are documented in accordance with the requirements established in the PEP (see Section 3.3.2.1).

**Other Document Control**

Project QA requirements are established based on a graded approach. Analytical data quality, program data quality, and NQA-1 elements **Should** be considered and developed as necessary. Either the Site QAPP is used for the project or a project-specific QAPP is developed for the project; alternatively, the project ***may*** use an approved QAPP previously developed.

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Work Control Procedure (IWCP), Quality Assurance Plan (QAP), Waste Management Plan, Training Plan, utility relocation design documents, building demolition design documents, equipment removal design documents, design engineering inspection, preparation of required procedures; e.g., Quality Assurance/ Quality Control (QA/QC) procedures, the preparation and submittal of all permits.

**... 04.02 Characterization, Building XXX Decommissioning**

This element covers all the task specific direct labor, equipment, materials, supplies and subcontract (A5X) costs associated with the Characterization processes for the decommissioning of Building XXX. Under this Characterization WBS, costs are collected under the following "Sub-Categories (lower level WBS Elements):" Scoping, Reconnaissance, In-process, and Final Characterization Survey, which includes independent verification, if required, for the D&D Closure Projects. This element does **not** cover the characterization associated with IHSS or UBC remediation, which is part of Environmental Restoration (ER).

**... 04.03 Site Preparation, Building XXX Decommissioning**

This element covers all the task specific direct labor, equipment, materials, supplies and subcontract (A5X) costs associated with Site Preparation for the decommissioning of Building XXX. The scope of this element could include, but is not be limited to, activities such as; the establishment of lay down areas, shipping and material processing areas; set-up of size reduction, monitoring and waste staging areas, and step-off pads; and the removal of stored wastes.

**... 04.04 Decontamination, Building XXX Decommissioning**

This element covers all the task specific direct labor, equipment, materials, supplies and subcontract (A5X) costs associated with Decontamination for the decommissioning of Building XXX. The scope of this element could include, but is not be limited to; the decontamination of building interior/exterior surfaces, equipment, drains, gloveboxes, tanks, process piping, ducting, etc. In addition, it includes the removal of hazardous and toxic substances; e.g., asbestos abatement, lead/lead based paint and PCB removals, etc. associated with the decommissioning effort.

**... 04.05 Dismantlement, Building XXX Decommissioning**

This element covers all the task specific direct labor, equipment, materials, supplies and subcontract (A5X) costs associated with Dismantlement for the decommissioning of Building XXX. The scope of this element could include, but is not be limited to, activities such as; the stripout, removal and size reduction, if required, of process equipment (gloveboxes, tanks, process piping, ducting, etc.), distributed systems (building lighting/power, heating, water, sewer, etc.), and isolation of the building/structure/etc. from the rest of the site infrastructure.

**... 04.06 Demolition and Disposal, Building XXX Decommissioning**

This element covers all the task specific direct labor, equipment, materials, supplies and subcontract (A5X) costs associated with the Demolition and Disposal of clean construction rubble and debris for the decommissioning of Building XXX. The scope of this element could include, but is not be limited to, activities such as the demolition and disposal of the roof, non-structural and structural components, foundations (if applicable) and, connecting structures (tunnels, breezeways, overhead walkways, etc.) of the building/structure/etc undergoing demolition. Additionally, this element includes the excavation of contaminated soil (if applicable), back filling, grading and seeding, as appropriate. This element also includes the packaging, pre-certification and movement to an identified pickup point; i.e., building loading dock, etc., of contaminated wastes generated during the overall decommissioning effort. Any additional movement, or treatment, storage and disposal (TSD) of contaminated (hazardous and/or radiological) materials, after they have been packaged and staged at the pickup point, for the types of hazardous and/or toxic wastes generated as a result of the overall decommissioning effort performed per the elements above, e.g., site preparation, characterization, decontamination, dismantlement (stripout), etc., are **not** included in this element. These waste disposal costs are the sole responsibility of Waste Management (WM).

*Pre-certification of waste materials is defined as that degree or amount of waste inspection and certification required, on the part of the specific D&D Project, to assure that there is a reasonable probability that the packaged wastes will not be returned to the project for additional work. Pre-certification does not involve the more sophisticated techniques of waste certification; such as, NDA, head space sampling, etc. These sophisticated certification techniques are the responsibility of Waste Management (WM).*

**... 04.07 Project Management, Building XXX Decommissioning**

This element covers all the task specific direct labor, equipment, materials, supplies and subcontract (A5X) costs associated with the Project Management efforts for the decommissioning of Building XXX. The scope of this element includes, but is not be limited to, activities such as: project management, construction management, oversight, project engineering, project administration, project controls and reporting, finance and accounting, training coordination, project records management and document control, etc.

**... 04.08 Support Services, Building XXX Decommissioning**

This element covers all the task specific direct labor, equipment, materials, supplies and subcontract (A5X) costs associated with obtaining support services for the decommissioning of Building XXX. The scope of this element could include, but is not be limited to: support services such as: training, procurement and contract administration, security and fire protection, QA/QC, waste management and inspection, transportation and construction equipment, radiological operations and engineering, Radiation Control Technician (RCT) support, medical and health, safety and industrial hygiene, shipping/receiving and warehousing, legal, regulatory interface, laundry, small tools and personnel protective equipment (PPE), analytical laboratory, toxic and hazardous material handling, utilities, excess property, telecommunications and information resources, finance and administration, planning and integration and other support services yet to be identified.

### 3.3.6 "Scoping-Level" Characterization

The characterization activities which occur as part of the project initiation and scoping phase are the development of a characterization plan; and the compilation and organization of existing information. This characterization effort is intended to provide a general idea of the work and facility condition, the general types of hazards involved, the issues and holes in the data, and the actions required of subsequent characterization activities. The scoping characterization activities provide input into the PEP and the Reconnaissance Level Characterization Plan. An overview of the entire characterization process for facility disposition projects, and how scoping fits into that process, is discussed in Chapter 2. Guidance for implementation of the scoping characterization requirements is provided in *Decontamination and Decommissioning Characterization Protocol.*

#### 3.3.6.1 Develop Characterization Plan

The project team **Should** develop a characterization plan for all the activities related to the "scoping-level" characterization task. This plan **Should** include a list of specific characterization activities and checklists, responsible individual(s), and a due date. Any specific formats, if required, for work products **Should** be specifically included in the plan.

#### 3.3.6.2 Historical Records Search and Data Compilation

The project team **Should** perform searches, interviews, and data gathering based on a planned approach that ensures consistency of effort. The project **Should** use checklists developed in conjunction with the characterization plan. The focus of this activity **Should** be the identification of historical activities occurring in the facility, history of abnormal events (e.g., spills and accidents), the facility condition, the facility hazards, and significant uncertainties, which will require further characterization. The project team **Should** attempt to establish initial or presumptive levels, types, and locations of contamination based on historical and current documentation.

Information learned from this characterization activity will provide references, contacts, and interfaces for future characterization activities regarding information sources and types of information expected to be available.

### 3.3.6.3 Facility Characterization Checklists (for walkdowns)

Based on the characterization plan, the historical records search, and an understanding of facility risk, system functionality and degradation, and landlord issues; the project team **Should** develop a facility scoping characterization checklist to ensure the facility walkdowns are productive. An example of items to be considered for the walkdown checklist is provided below.

**EXAMPLE SCOPING CHARACTERIZATION WALKDOWN**

Preparation
- Review of engineering drawings: layout, structural, mechanical/HVAC, process
- Estimate data for glovebox volume
- Interviews and discussions of past operations, spills, incidents
- Review of operational radiological surveys
- Expected list of contaminants, hazards, OSHA and IH issues (by room?)
- Expected removal approaches
- Organization of work elements
- Prepare specific checklist
- Identification of rooms/areas to be inspected
- Review of AB and identification of safety systems impacting turnover, immediate work, and to be evaluated for adequacy to perform
- Identification and procurement of necessary RWPs, other safety preparation
- Identification of RCRA Units or areas/items with permit considerations
- Disciplines/individuals required; photography, video, or other data gathering

Walkdown
- Condition of equipment
- Arrangement, discoloration, painting, or deterioration indicative of contamination spills
- Location of equipment, access, congestion, height, etc. which will require specialized equipment or scaffolding, and increase work difficulty
- Consistency of measurements or data with actual conditions; equipment not shown on drawings (or shown and absent); walls changed, etc.
- Ventilation considerations
- Identification of potential sample locations, areas
- Legacy waste, orphan/excess equipment, trash, etc.

Post-Walkdown
- Comparison of data and identification of discrepancies
- Description of layouts and identification of issues
- Preliminary sample area identification
- Develop and issue walkdown report

### 3.3.6.4 Facility Walkdowns

The project team **Should** include the appropriate personnel on the walkdowns to ensure completion of checklist items and to assist in identifying additional issues based on observations and the facility condition.

Using the checklists previously developed, the project team's assessment **Should** include, at a minimum, the following issues: radiological conditions; waste chemicals; RCRA unit status; stored waste; idle equipment status; project logistics issues (staging areas, waste staging, etc.); potential impacts to surface water, ground water, and ecology (e.g., birds nesting); and presence of any other hazardous material or condition. During this walkdown, the project team **Should** identify and document the general types and locations of the key facility hazards.

### 3.3.6.5 Summary of Results

The project team **Should** develop a written summary of the facility characterization activities as a result of the facility walkdown. The purpose of the summary is to prepare for the joint scoping meeting and provide a document as a starting point for further characterization. This summary **Should** include the following:

- Facility condition
- Operational historical
- System functionality
- Stored Waste, RCRA Unit, Idle Equipment status, and Tank Management
- Preliminary hazards identification (radiological, chemical, industrial)
- IHSSs or other areas identified as potentially contaminated that are associated with the project (i.e. UBCs, PACs, etc.)
- Environmental interfaces or issues other than IHSS locations
- Status of past/current hazards reduction activities
- Expected future hazards reduction before decommissioning begins

The project team **Should** include in the summary any key issues which must be addressed in the Reconnaissance Level Characterization activities during Phase 1 Planning. This **SHALL** include initiating the Data Quality Objective (DQO) process.

## 3.3.7 Joint Scoping Meeting

The purpose of the Joint Scoping Meeting is to coordinate the RFCA requirements and attain agreement on the defined project scope, the RFCA decision document required, and the classification of the facility type based on the "scoping-level" characterization. The Joint Scoping Meeting is conducted between DOE, the LRA, and selected members of the project team.

The scoping issues/items listed in the table below are representative of the topics for discussion in the joint scoping meeting. The level of detail and determination of scope for this meeting **Should** be graded to the project and the facility type. Therefore, not all of these issues/items apply to every scoping meeting. Examples of representative issues/items for the joint scoping meeting are shown below, divided into two groups: informational and consultative.

**EXAMPLE/REPRESENTATIVE JOINT SCOPING MEETING ISSUES/ITEMS**

**Informational**

- The purpose of the project/activity or work (objective and principal driver; why the project/activity is being performed).
- Project Organization (Chart, Responsibilities, and Site and Regulatory Interfaces)
- History of the building operations.
- Record management and configuration control systems established.

- Work Breakdown Structure (WBS) extended to an appropriate level.
- Strategies for isolating utilities, processes, & systems for safe shut down.
- Strategies for Nuclear Safety Authorization Basis.
- Identification of additional resources that ***may*** be needed for the activity/project.
- Initiate Environmental Checklist (Waste, Water, Air, NEPA, Ecological, potential ARARs, etc.).
- The type of project/activity or work being performed (i.e. deactivation and decommissioning, demolition, environmental restoration).
- Input identified for the Reconnaissance Level Characterization Plan development.
- Initial contracting strategies.
- Significant uncertainties that currently exist that could affect the performance of the project/activity (including project/activity characterization information).
- Project and Regulatory Interfaces (e.g., this project/activity could have interfaces with other activities in the same location).

**Consultative**

- Scope of Project (WBS, Endpoints, Milestones, Interfaces, Uncertainties, Key Strategies)
- Initial levels, types, and locations of contamination based on historical and current documentation.
- The starting and end points for the project/activity (project/activity boundaries).
- A description of the major work steps, phases, or elements.
- Principal types of hazards directly involved with project/activity or expected to be encountered during performance of project/activity (keeping this assessment at a high level).
- Strategies for decontamination, deactivation of equipment and processes.
- Volumes, types, and methods for handling the various types of wastes encountered and/or generated (i.e. waste management strategies).
- Permitting Strategies (e.g., RCRA, etc.).
- Proposed facility type.
- Proposed Decision Document Required: Type (i.e., PAM, DOP, IM/IRA), Content, and Public Comment Period.
- Initial Performance Standards and Potential ARARs
- Identification of Regulatory Authorities & Decision-Makers (RFCA, EPA, CDPHE, DOE, etc.).

### 3.3.7.1 Prepare for Joint Scoping Meeting

Upon completion of the project scoping activities in this phase, a presentation, outlining the applicable issues/items **Should** be prepared for the Joint Scoping Meeting with DOE and the LRA. The project team supports the KH and Principal Subcontractor Project Managers in the development of the presentation that covers the informational and consultative issues/items previously discussed.

Before the Joint Scoping Meeting can occur, the Division Manager, D&D Projects, **SHALL** determine that the level of project development is adequate, that the facility hazards are sufficiently well understood, and that the all of the applicable scoping issues/items are adequately addressed. The D&D Projects Division Manager **SHALL** notify the KH Project Manager by letter or memo that the Joint Scoping Meeting can proceed.

### 3.3.7.2 Conduct Joint Scoping Meeting

The LRA, DOE, and selected members from the project team (lead by the KH and Principal Subcontractor Project Managers) **SHALL** conduct the Joint Scoping Meeting. Participation from other applicable regulators and stakeholders is welcomed and encouraged. The KH and principal Subcontractor Project Managers, in coordination with DOE/RFFO, **SHALL** make a presentation of the issues/items prepared in the previous task. The consultative issues/items **Should** be presented as items open for discussion at the meeting.

As an elaboration to the consultative issues/items listed in the table above, the project team **SHALL** be prepared to discuss the following three key issues during the Joint Scoping Meeting:

- Environmental Strategy – This is a discussion of the various environmental and ecology requirements and potential impacts, protection and the necessary path forward. Included in this discussion will be a review of RCRA Closures, regulatory and permit requirements, monitoring issues and other potential environmental concerns.

- Identification would be waived under the CERCLA process and justification of how the substantive elements (i.e. standards, requirements, criteria, and limitations) would be met. This information would be formalized in the decision document. The following permits **Should** be considered: RCRA storage, General Stormwater Permit for Construction Activities, RAD/NESHAP, wastewater handling vis-à-vis then-available treatment facilities, and impacts of project stormwater runoff on other RFCA activities.

- The initial, proposed list of potential ARARs, including highlighting of specific differences from other D&D projects. The listing of potential ARARs identified in the RFCA Implementation Guidance Document, Appendix J, **Should** be consulted.

Consistent with budget and schedule, the project **may** proceed with Reconnaissance Level Characterization unless notified in writing.

Meeting minutes **SHALL** be taken and distributed to applicable organizations and be placed in the AR file by the K-H Project Manager. Any key issues to be evaluated or analyzed will be identified as action items in the meeting minutes. Action items from the meeting **SHALL** be formally dispositioned.

# CHAPTER 4
# PHASE I PLANNING

## 4.0 PURPOSE

The purpose of this chapter is to present the requirements and guidance for performing the Phase I Planning activities of the project. The objective of this phase is to confirm the facility type and continue the facility characterization process through the Reconnaissance Level Characterization Report; and to update the PEP with expanded scope details based on the additional characterization, engineering studies, and engineering assessments.

## 4.1 OVERVIEW

This chapter defines the requirements for facility characterization that ultimately lead to the preparation of a Reconnaissance Level Characterization Report (RLCR). Prior to this planning phase, the project scope in the PEP has been defined and the joint scoping meeting has been conducted. At the completion of Phase 1 Planning, the project has LRA concurrence of facility type, adequate information to support the development of engineering design packages has been developed, and a reasonable certainty of the scope and methods to accomplish the project have been defined in the updated PEP.

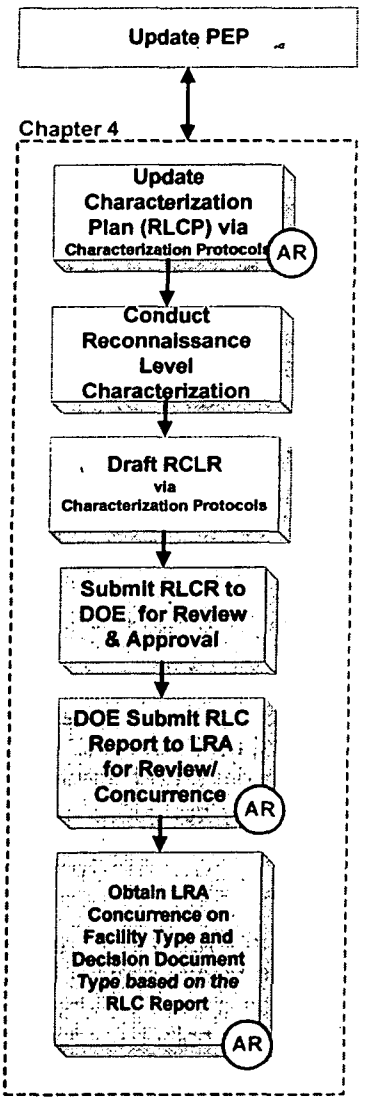
One of the planning activities in this phase includes establishing the method of accomplishing the scope and evaluating project decisions necessary to develop DQOs. Further feasibility studies are performed to validate these methods in parallel with the reconnaissance level characterization. At completion of the reconnaissance level characterization, and in parallel with developing the RLCR, additional field data will be factored into the work planning through engineering studies/assessments and feasibility studies to establish the baseline scope and approach for the project.

The characterization activities performed in this phase include the development of the Reconnaissance Level Characterization Plan (RLCP), coordination with the work planning and scoping activities, conducting the field characterization, development of the RLCR, and submittal of the RLCR through DOE for concurrence by the LRA.

## 4.2 PROCESS LOGIC FLOW

The Phase I Planning activities are shown in the process logic flow in Figure 4-1. As discussed earlier, the project initiation and scoping activities have been completed prior to this phase of the facility disposition process. The list of Phase I Planning activities, as shown in the flow diagram, flow sequentially from top to bottom. The development of the PEP is shown as a long-bar at the top of the process flow diagram and encompasses the entire project life. During this phase, the PEP developed in the project initiation and scoping phase is updated and the reconnaissance level characterization is developed, reviewed, and approved by DOE with concurrence by the LRA. The process flow diagram shows that the results from the reconnaissance level characterization are used in the Phase II Planning and Engineering activities. In addition, the results from the confirmation of the facility type are used as the basis for developing the required RFCA Decision Document (e.g., DOP, IM/IRA, or PAM).

## Figure 4-1
## PHASE I PLANNING
## PROCESS FLOW DIAGRAM



## 4.3 REQUIREMENTS

### 4.3.1 Update PEP

Based on the information and results from the Phase I Planning activities, the principal subcontractor project manager prepares an update to the PEP developed for the project in the previous phase. The reconnaissance level characterization, engineering assessments, and feasibility studies provide the key input for this update. Specific information to be provided in this updated PEP are listed and discussed in Chapter 2 and Appendix C-1. The PEP is a living document that is periodically updated throughout the life of the project. The following sections provide additional requirements and guidance for updating the PEP during this phase of the project.

#### 4.3.1.1 Preliminary Engineering Options Analyses

Engineering options analyses are the actions that support decisions between programmatic or technical alternatives. Not all activities in the planning and execution will present issues or require unique decisions; many activities will be nearly identical to activities in other projects or routine site activities. Where previous performance was adequate, further analysis is not required. Where previous performance was inadequate, new technology or approaches offer opportunities, unique features present problems, or uncertainties pose questions, the project **Should** identify as many options as reasonable to minimize having to revisit the issue at a later stage of planning or execution. The results of options analyses will be better defined in (and backup to) the Methods of Accomplishment section of the PEP, definition of trade-off and engineering studies in subsequent planning, and identification of information required during characterization.

The project team identifies significant technical issues, based on knowledge of facility and scoping-level characterization. These issues may be "significant" due to safety and environmental issues, cost impact (decommissioning or landlord), interface with other in-building organizations, differences or similarities with other projects, lessons learned, level of uncertainty, and integration with other Site projects (e.g. resources).

The project team identifies the options or methods to address these significant technical issues. The project team identifies the data required to support the recommended methods and whether this data is available through historical records or walkdowns. The project team provides this information for development of the scoping-level characterization checklist.

When additional data or analysis is required, the project team identifies the need for any or all of the following types of studies:

- engineering design analysis,
- engineering alternatives analysis,
- value engineering studies,
- feasibility studies,
- test and demonstration activities, and
- characterization data acquisition.

### 4.3.1.2 Conduct Engineering Design/Alternatives Analysis and Feasibility Studies

These analyses support the development of the conceptual approach to planning and executing the project. These analyses occur in parallel with the reconnaissance level characterization effort and ***may*** not be required based upon the project scope and the characterization data available. The different methods being evaluated ***may*** include approaches for waste handling, logistics and staging, security and safeguards control after Material Access Area (MAA) elimination, assuring best value for the dollar, and other design studies related to "how" the facility disposition tasks are performed. Feasibility studies would cover technology demonstration projects in order to evaluate equipment and/or processes and their application at the RFETS.

The engineering design alternatives identified above are developed through facility hazards assessments, facility walkdowns, scoping characterization, cost considerations, etc. In order to assess the methods for completing the project and to complete the Phase II planning, further engineering review and evaluation is required. During this phase of the planning effort, the project team develops conceptual engineering design alternatives and approaches for completing the project and integrating them into the WBS Dictionary.

The project team assesses options for the following:

- Methods for decontaminating facility surfaces (requiring information on the nature, extent, and depth of contamination);
- Methods for demonstrating the presence/absence of RCRA/CERCLA constituents (requiring information on the constituents present and approved treatment approaches that ***may*** be appropriate); and,
- Methods for the size reduction of equipment (e.g., gloveboxes, process lines, etc.)

These options are identified in sufficient detail to begin the Phase II Planning and Engineering in the next phase. When a value engineering study is applied, the resulting report becomes a project record and is filed with the Site Value Management Program Office. The project team documents in the project files the objectives, scope, cost, schedule, and deliverables of all engineering assessments and feasibility studies following the guidance in the PEP and the project record management system.

### 4.3.1.3 Develop Contracting Strategy

In order to support planning and project execution, it is important that the project team begins to develop their strategy towards performing and executing the work. In this planning phase, the project team further develops the contracting strategy discussed in the joint scoping meeting. This could include: type of pricing, need for AE/C/CMs, who is performing work (in-house, use of bargaining unit or building trades personnel). The project team continues to perform Davis-Bacon determinations (in accordance with the Davis-Bacon Process, 1-90000-ADM-9.05), as necessary, and develop RFPs required to avoid project delays.

### 4.3.1.4 Develop Waste Management Strategy

In order to support Phase I planning, and to assess the impacts of waste generation on waste management and transportation, it is important to begin developing and evaluating the projects waste management strategy. In this Phase, the project team updates the waste estimates included in the Closure Project Baseline and any additional assessments. The project team

defines the scope of activities leading to the development of an Economic Disposal Plan (including property disposal), and a Waste Management Plan based upon the results of the reconnaissance level characterization, waste decontamination, and volume reduction evaluations required by the final PEP. The Waste Management Plan can be a separate document, or a section or attachment to the PEP.

> ***Note:*** *Waste management guidelines are found in the Offsite Waste Management Program, 1-MAN-037-OWMP.*

### 4.3.2 Reconnaissance Level Characterization

Reconnaissance level characterization is performed to establish a definitive baseline of information when planning for decommissioning of Type 1, 2, and 3 facilities. This phase includes a review of information to establish a definitive baseline of contamination, hazards, and facility condition necessary to complete the planning effort. An overview of the entire characterization process for facility disposition projects, and how reconnaissance level characterization fits into that process, is discussed in Chapter 2. Guidance for implementation of the scoping characterization requirements is provided in the *Decontamination and Decommissioning Characterization Protocol Manual.*

#### 4.3.2.1 Prepare a Reconnaissance Level Characterization Plan (RLCP)

A Reconnaissance Level Characterization Plan (RLCP) is prepared to establish the baseline for facility characterization for Type 1, 2, and 3 Facilities using application of a graded approach based on the project and facility type.

The RLCP **SHALL** follow the guidance provided in the *Decontamination and Decommissioning Characterization Protocol Manual.* This manual outlines the sampling and survey methodology for characterization by defining the type, quantity, condition, and location of radioactive and hazardous materials. An example template for the RLCP is provided in Appendix D-1.

The RLCP provides 1) the basis for the start of project planning activities, 2) the input for the preparation of health and safety plans, 3) any additional requirements for engineering assessments and support and provides, and 4) what the DQOs are, and how to meet them.

DQOs are qualitative and quantitative statements derived from the DQO process that clarify technical and quality objectives, define the appropriate type of data, and specify levels of decision error that will be used as the basis for establishing the quality and quantity of data necessary to support facility disposition decisions. Through the implementation of the DQO Process, the following decisions are made:

- Why additional characterization is required,
- What additional information is required, and
- What is the end use of materials, media, equipment, and structures

These decisions are a result of the review of data gathered during the Project Scoping Phase regarding facility conditions, hazard assessments and the levels of radiological and hazardous material contamination present. From this evaluation, the need for additional data is identified and a RLCP is then prepared.

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The RLCP **Should** include the following information:

- An introduction, including the purpose and scope of the project.
- A discussion of the data life cycle process as it supports characterization.
- A description of the Building/Cluster including a physical description, operating processes, equipment, or systems, and general building conditions; the presence of radiological materials and chemical products; the existing radiological and chemical contamination data; and known radiological, chemical and physical hazards; present data gaps.
- A description of the Project Organization, including defined functions, roles, and responsibilities.
- A discussion of Facility Entry requirements for conducting characterizations within a facility, including requirements for Conduct of Operations, and Integrated Work Control Procedures.
- A discussion of the data requirements for sample collection and analysis including, if required: 1) sampling and field measurement/survey methods and procedures per contaminant type (including radiological contamination); 2) the number of samples, including sample locations, sample and survey grids, etc.; 3) the type of instruments to be used and required detection limits; and 4) laboratory analysis, sample handling procedures, QC samples, sample designation, personnel and equipment decontamination, and waste management.
- Data Quality Objectives (DQOs EPA QA/G4) as identified in the *Decontamination and Decommissioning Characterization Protocol Manual.* The Problem, The Decision, Inputs to the Decision, The Project Boundaries, Decision Rules, Limits on Decision Error and Optimizing the Design for Collecting Data are steps in the process that are discussed as part of the DQO process.
- A discussion of Environmental, Health and Safety Requirements and controls for performing characterization, including building and cluster specific requirements and implementation of the Integrated Safety Management System Manual requirements.
- Quality Assurance, including applicable QA Programs, Personnel Training and Qualification, Document Control and Records/Data Management, Change Control, Procurement, Inspection and Acceptance Testing and Assessments and Continuous Improvement.

Once the draft RLCP has been prepared, the RLCP **SHALL** be forwarded to D&D Projects and project team representatives for review and approval. The level of detail and content are evaluated to assure compliance with the *Decontamination And Decommissioning Characterization Protocol Manual.* Once approved by the D&D Projects Division Manager, the RLCP is implemented by the project team by conducting the reconnaissance level characterization activities in the plan. A copy of the RLCP is placed in the project-specific administrative record file.

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#### 4.3.2.2 Conduct Reconnaissance Level Characterization

Facility walk-downs are conducted by a "team" consisting of Kaiser-Hill Closure Program representatives and any other Site party directly affected by the disposition, such as, operations, deactivation, decommissioning, engineering, health and safety, radiation protection, nuclear and criticality safety, environmental systems and stewardship, and safeguards and security.

The radiological and chemical (including PCBs and asbestos) condition of the facility are assessed in order to identify radioactive or hazardous waste storage areas, contaminated areas and hazards, as well as physical obstacles or other conditions that could affect decommissioning activities.

#### 4.3.2.3 Prepare Reconnaissance Level Characterization Report (RLCR)

A Reconnaissance Level Characterization Report (RLCR) **SHALL** be prepared to document the results of the information gathered during the characterization effort and subsequent engineering studies and assessments, and to recommend the facility classification. This report provides the results, summarizes the hazards and risks associated with them and provides adequate detail to allow DOE/RFFO to approve the facility classification. The RLCR **SHALL** follow the guidance provided in *Decontamination and Decommissioning Characterization Protocol Manual.* An example template is provided in Appendix D-2.

The RLCR for Type 1,2, and 3 facilities **Should** include:

- An executive summary, which provides a general overview and summary of the report.
- An introduction, which describes the purpose, scope and content of the report.
- A summary of Characterization/Survey Activities, which describes the Data Quality Objectives, Sampling and Field Measurement/Survey Methods, Procedures and Equipment, and Laboratory Analysis.
- A review of the Building/Cluster Operating History, which describes the history of the Buildings, past and current operations, and a physical description of the building.
- An identification of building hazards (e.g., physical, radiological chemical, asbestos, pressure vessels, electrical, wastes, etc.).
- A discussion of decommissioning waste types and waste volume estimates.
- A discussion regarding data confirmation and a review of data quality assessments.
- A discussion of the Final Building Categorization and a discussion regarding the next step in the facility disposition process including alternative assessments and engineering studies.

#### 4.3.2.4 Submit RLCR to DOE for Review and Approval

Once characterization has been completed and a draft RLCR has been prepared, the RLCR and cover letter requesting "facility classification" **SHALL** be forwarded to D&D Projects and project team representatives for review. Following comment resolution, the RLCR is approved

by the D&D Projects Division Manger and submitted to DOE for review and approval. The level of detail and content is evaluated to assure compliance with the *Decontamination and Decommissioning Characterization Protocol Manual*. Once approved by DOE, DOE submits the RLCR to the LRA.

#### 4.3.2.5 DOE Submits RLCR to LRA for Review and Concurrence

The RLCR is forwarded by DOE to the LRA that has 10 working days to concur with the RLCR and the Facility Type Classification, which is a summary finding of the RLCR. Following review and concurrence by the LRA, a letter is transmitted to DOE/RFFO stating concurrence on the classification of the facility type and approving follow-on work.

The completed RLCR and the concurrence letter from the LRA, if available, are placed in the project-specific administrative record file. The facility type confirmation is used as a basis for developing the required RFCA Decision Document in the Phase II Planning and Engineering.

# CHAPTER 5
# PHASE II PLANNING AND ENGINEERING

## 5.0 PURPOSE

The purpose of this chapter is to present the requirements and guidance for performing the Phase II Planning and Engineering activities of the facility disposition project just prior to project execution. The objective of this phase is to complete all the engineering, work planning, and authorization basis activities leading up to the readiness determination and final work preparations in the project execution phase. A major activity in this phase is to finalize and approve the PEP for work execution, which includes finalizing all the engineering design and scope determinations and the contracting strategy to update the PEP with expanded scope details based on the additional characterization, engineering studies, and engineering assessments.

## 5.1 OVERVIEW

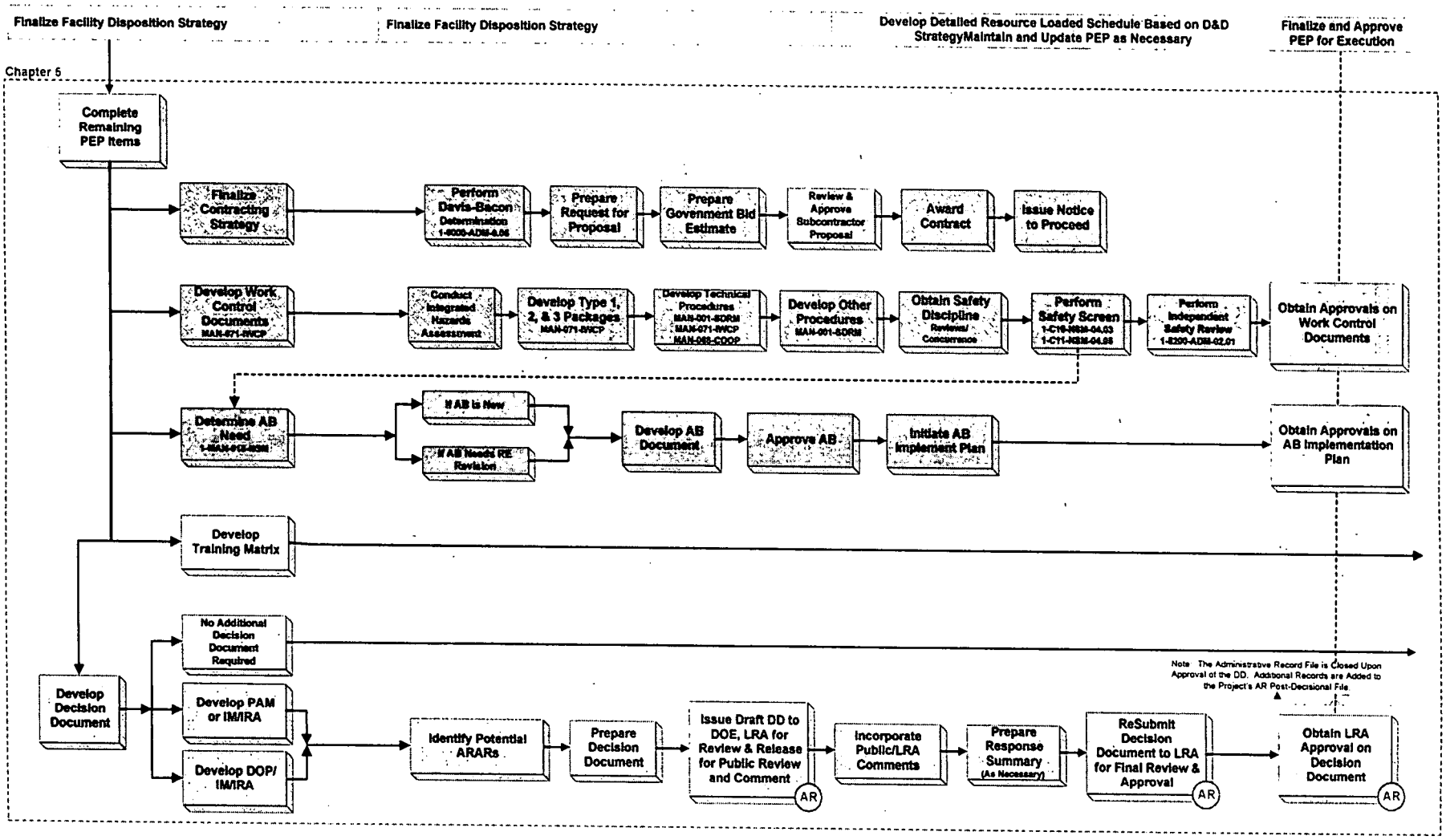
Phase II Planning and Engineering is the culmination of many planning activities started in the two previous chapters, Scoping and Phase I Planning. In addition, several new activities related to work authorization and preparation for execution are completed. The key elements of this chapter are listed below:

- Finalizing and approving the Project Execution Plan
- Finalizing the Contracting and Procurement Strategy
- Developing the Work Control Documents
- Completing the Authorization Basis Documents
- Completing the RFCA Decision Documents

## 5.2 PROCESS LOGIC FLOW

The Phase II Planning and Engineering activities are shown in the process logic flow diagram in Figure 5-1. The Phase I Planning activities have been completed prior to this phase of the facility disposition process. The key interface points are the results from the reconnaissance level characterization and the confirmation of the facility type used as a basis for developing the RFCA Decision Document. The continued development of the PEP is shown as a long-bar at the top of the process flow diagram and encompasses the entire project life. In this phase the PEP is finalized and approved providing the final engineering design and scope and the basis for work execution. The other key activities involve developing the work control and authorization basis documents. The process flow diagram shows that the results from the Phase II Planning and Engineering activities come together to provide the basis for the implementing the work control documents and performing the final preparations prior to work execution.

## Figure 5-1
## PHASE II PLANNING AND ENGINEERING
## PROCESS FLOW DIAGRAM



## 5.3 REQUIREMENTS

### 5.3.1 Finalize and Approve PEP

The Facility Disposition Project Execution Plan (PEP) was started (or updated if already started in deactivation phase) in the Project Initiation and Scoping Chapter and then updated in the Phase I Planning Chapter. At this point in the Facility Disposition Process, it is time to reach closure on the first complete PEP for the project. The PEP is a living document and **SHALL** be periodically updated throughout the remaining duration of the facility disposition project. An outline of the PEP table of contents is included in Appendix C-1. Specific information to be provided in this final PEP is listed and discussed in Chapter 2 and Appendix C-1. The following sections provide additional requirements and guidance for finalizing the PEP.

#### 5.3.1.1 Finalize Facility Disposition Strategy

The engineering design alternatives assessments that were started for facility disposition activities in the Scoping and Phase I Planning Chapters are completed in this section. The purpose of these assessments is to evaluate different engineering design options for performing the defined scope of work for the project. In order to select a preferred design option, engineering design alternative assessments and cost evaluations are performed for each design engineering decision that needs to be made. Engineering Design Alternative Assessments are completed, documented, and approved in accordance with the Site Engineering Requirements Manual (SERM) and the IWCP Manual.

Following the completion of the engineering design alternative assessments, the project team selects a preferred design option for each design engineering decision. The selected design options form the basis of the additional engineering design efforts. A facility disposition project strategy usually involves several design-engineering decisions that require engineering design packages to be developed. Engineering Design Packages for each major design decision that may have been started in an earlier phase of the project are completed and documented in accordance with the Site Engineering Requirements Manual (SERM) and the IWCP Manual.

#### 5.3.1.2 Complete Remaining PEP Items

The remaining items necessary to finalize the PEP are completed using the PEP template and guidance in Appendix C-1 to determine what may be needed. The Project QA Plan, Health and Safety Plan, and Waste Management Plan are examples of documents or sections to be included in the final PEP. These plans ***may*** be separate documents attached to the PEP or separate sections within the PEP. In addition, the following items identified in Chapter 2 and Appendix C-1 are completed in this phase of the project:

- contracting strategy,
- training matrix,
- resource loaded schedule,
- work control documents,
- authorization basis documents, and
- RFCA Decision Documents.

### 5.3.2 Finalize Contracting Strategy

The preliminary contracting strategy for the facility disposition project was discussed during the scoping meeting. During the Phase I Planning efforts, the contracting strategy was revised and updated based on the Phase I activities. During the Phase II Planning efforts, the contracting and procurement strategy is finalized in preparation for executing the necessary procurement contracts and starting the work execution activities. The final contracting strategy **SHALL** be determined by the Project Team and documented in the PEP. The contracting strategy can include developing the engineering studies or work packages, work control documents, the authorization basis documents, or the RFCA Decision Documents. Therefore, some of the activities in Phase II Planning and Engineering ***may*** be performed by a subcontractor organization and others performed by the project team. In addition, subcontractor personnel could fill some of the project team positions. The following actions are followed in accordance with the site infrastructure:

- performing Davis-Bacon determination,
- preparing request for proposal,
- preparing government bid estimate,
- reviewing and approving subcontractor proposals,
- awarding the subcontractor contract: and,
- issuing the notice to proceed.

A template for developing the Statement of Work (SOW) is provided in Appendix E-1 to assist the project team in preparing the request for proposal. An application for pre-qualification of prospective bidders ***may*** be required if a subcontractor pool does not already exist. A template for this application is shown in Appendix E-2. A process description for administration of the pre-qualification pool is contained in Appendix E-3.

### 5.3.3 Work Control Document (WCD) Development

The Integrated Work Control Program (IWCP) Manual applies to all Site employees and subcontractors performing or supporting onsite work. All maintenance, modification, decommissioning, demolition, environmental remediation, operations, surveillance, and construction work at the Site is performed in accordance with the IWCP Manual. For the purposes of this manual, "work" will be interpreted as any of the above types of activities.

The IWCP Manual provides a method by which Integrated Safety Management (ISM) is implemented on the job. It provides a single process through which all work on the Site is performed. It ensures that the work is screened consistently to uniform criteria and that hazards are appropriately analyzed and controlled. Based on the facility disposition scope defined and documented in the PEP, and the work planning previously completed in this chapter, work control documents are prepared in accordance with the IWCP Manual.

During Phase II Planning and Engineering, the facility disposition work scope is finalized and documented in the PEP, where it is divided into specific work elements. Each of the major work elements requires that one or more work control documents be developed to perform the work. Development of work control documents is an iterative process and includes review and assessment of the work products (e.g., SME concurrence, management reviews, independent safety review, and quality assurance evaluations). Feedback from previous work is used in the development of the work control documents.

### 5.3.3.1 Determine Types of Work Control Documents Needed

Based on the facility disposition scope, which is divided into major work elements in the PEP, the Principal Subcontractor Project Manager with support from the project team determines the appropriate type and number of work control documents required for each major work element. Guidance is provided in the IWCP Manual to assist the project manager in making these decisions. In addition, descriptions of the different types of work control documents are contained in the IWCP Manual.

### 5.3.3.2 Form Work Planning Teams and Complete Work Control Documents

Based on the results of the Activity Screening Form that determined the level of work planning required for the project, work planning teams are formed for each major work element of the facility disposition scope defined in the PEP. These work planning teams may have initiated the work elements required in the IWCP Manual during Phase I and II Planning and are now ready to develop the work control documents that incorporate the results of the planning efforts. The Principal Subcontractor Project Manager directs the work planning teams to complete specific work control documents to support the major work elements of the project in the framework of an integrated hazard assessment. The methodology for conducting an integrated hazard assessment is discussed in the IWCP Manual. If required, the project manager may form new work planning teams to develop the work control documents, or use some or all of the existing teams. Each type of work control document is developed, documented, and approved in accordance with the specific guidance and requirements in the IWCP Manual.

## 5.3.4 Authorization Basis Document Development

Facility Disposition Projects usually involve activities that are not included in the facility authorization basis document currently in place for the operations or deactivation phase of the facility. Therefore, as a minimum the facility disposition activities need to be reviewed to verify that they are included in the current facility authorization basis document. In most cases, the change in mission or scope for the specific decontamination and decommissioning activities involved in a facility disposition project will require a revision or update to the facility authorization basis document. This change to the facility authorization basis is completed and implemented prior to the readiness determination, work preparation, and work execution phase of the facility disposition project.

For facilities that are classified as a Hazard Category 2 or 3 Nuclear Facility, the authorization basis document is reviewed and approved by DOE and takes the form of a Final Safety Analysis Report (FSAR), a Basis for Interim Operation (BIO), or a Basis for Operation (BFO). Note: There are no Hazard Category 1 nuclear facilities at RFETS. A revision to the current authorization basis document is usually required for nuclear facilities due to the change in mission and scope of the facility from operations to closure. A safety evaluation is performed (SES/USQD) to determine the need for a revision or update to the facility authorization basis. This revision can take the form of a new authorization basis document, a page change, or preferably, can be completed during the annual update to the existing authorization basis document. Significant changes to authorization basis documents usually require an implementation plan to implement the revised facility control set. The authorization basis for nuclear facilities is commonly referred to as the Nuclear Safety Authorization Basis (or AB, capitalized).

For non-nuclear facilities (e.g., radiological or industrial facilities, less than Hazard Category 3) which are being planned for facility disposition, a formal DOE-approved authorization basis document usually does not exist, and a Nuclear Safety AB is not appropriate. However, it is still appropriate for some level of safety analysis to be performed for these radiological or industrial facilities. Therefore, for this class of facilities an Auditable Safety Analysis (ASA) is completed and constitutes the contractor-approved authorization basis (non-capitalized) document for the facility disposition project. Facility Safety Analyses (FSAs) or other equivalent safety analyses can be performed as long as they meet the requirements and intent of ASAs.

The following requirements for the development of authorization basis documents related to facility disposition projects are divided into non-nuclear and nuclear facilities.

### 5.3.4.1 Non-Nuclear Facilities

A. Applicability

This section applies to facilities that are classified as less than Hazard Category 3 (e.g., "radiological" or "industrial" facilities) as defined in DOE Standard, DOE-EM-STD-5502-94, *Hazard Baseline Documentation*, August 1994.

B. Review Activity Scope

If an authorization basis or safety analysis currently exists for the facility, the scope of the facility disposition project is compared to the scope analyzed in the safety analysis documentation. The changes in scope are identified and documented for further analysis. If no changes in the facility scope are required to accommodate the facility disposition project, document this review and continue with the facility disposition process in this chapter. If there is no authorization basis or safety analysis documentation for the scope of the facility disposition project, perform a safety analysis of the new scope in accordance with Step C below.

C. Safety Analysis

A safety analysis of the new or revised scope of work for the facility disposition project is performed and documented as an ASA (FSA or equivalent safety analysis) in accordance with the IWCP Manual. Additional guidance from the following documents is used to perform the ASA: DOE Standard, DOE-EM-STD-5502-94, *Hazard Baseline Documentation*, August 1994; and Kaiser-Hill Nuclear Safety Technical Report (NSTR), *Safety Analysis and Risk Assessment Handbook (SARAH)*, NSTR-RFP-5098, Revision 1, April 22, 1997. The safety analysis documented above may be kept as a separate document, or included with the Health and Safety Plan (HASP) for the project or facility. In addition, the hazard information collected and documented as part of the RLCR (See Chapter 4) can be used as input to the safety analysis for the authorization basis document.

D. Documentation Contents

ASAs **Should** include, as a minimum, the following subsections:

- Facility/project activities analyzed
- Hazards identified
- Qualitative/Quantitative analyses performed

- Controls required to prevent /mitigate hazards (administrative and engineered controls, including system functional requirements)

E. Review and Approval

The completed safety analysis documentation (serving as the non-nuclear authorization basis documentation) **SHALL** be reviewed and approved by the Kaiser-Hill Project Manager, the applicable Program Chief Engineer (PCE), and the Facility Manager. This approved documentation can be submitted to DOE and other regulatory agencies, for information only, at the discretion of the Kaiser-Hill Project Manger.

F. Controls

Based on the completed safety analysis (ASA), any new or revised administrative or engineered controls are implemented in the facility by the Facility Manager. At the discretion of the Facility Manger, a formal Implementation Plan can be used to implement the new or revised controls depending on the extent and magnitude of the changes. Successful implementation of the changes in the facility authorization basis controls are verified in accordance with the Readiness Determination Manual.

### 5.3.4.2 Nuclear Facilities

A. Applicability

As required by the Nuclear Safety Manual and DOE Order 5480.23, *Nuclear Safety Analysis Reports*, this section applies to facilities that are classified as Hazard Category 2 or 3 "nuclear" facilities. This classification is defined in the following DOE Standards: DOE-EM-STD-5502-94, *Hazard Baseline Documentation*, August 1994; DOE-STD-1027-92, *Hazard Categorization and Accident Analysis Techniques for Compliance with DOE Orders 5480.23*, Nuclear Safety Analysis Reports, December 1992.

B. Review Activity Scope

The change in scope or mission of the facility based on the proposed work being performed as part of the facility disposition project is reviewed in accordance with the Nuclear Safety Manual and the applicable safety evaluation process (SES/USQD) implemented for the facility. If the safety evaluation indicates that the new or revised activities can be performed within the current facility authorization basis document, then this review is documented and filed with the work control documents. If a change to the facility authorization basis document is required based on the safety evaluation, proceed to the next step to make the change.

C. Revise/Update Authorization Basis Document

There are several options for changing the document. The simplest is to make the change during the next annual update. Another option is to make a page change to the document that requires DOE approval. The most complicated change is to perform a major revision or to completely develop a new authorization basis document. All of these changes to the facility authorization basis document are performed in accordance with the Nuclear Safety Manual and the applicable implementing procedures for the facility. This includes performing a safety analysis (if required); determining necessary additional or revised engineered or administrative controls; developing changed pages, a

revised document, or a new document; and going through the review and approval process (internally and DOE). Some information from the safety analysis and control set determination can be useful to the work planning teams developing the work control documents and to the project team developing the Health and Safety Plan (HASP) for the project or facility.

D. Controls Set Implementation

Based on the revised or new authorization basis document, any new or revised administrative or engineered controls that are required to be implemented in the facility in order to perform the facility disposition project are implemented by the Facility Manger in accordance with the Nuclear Safety Manual. At the discretion of the Facility Manger, a formal Implementation Plan can be used to implement the new or revised controls depending on the extent and magnitude of the changes. Successful implementation of the changes in the facility authorization basis controls are verified in accordance with the Readiness Determination Manual.

### 5.3.5 RFCA Decision Document Development

This section will present the requirements for the development of a RFCA Decision Document for each of the three facility types. The guidance for determining if a RFCA Decision Document is required is contained in Appendix E-3, which is taken out of the DPP. If a RFCA Decision Document is required for the project, the specific requirements and guidance for developing the RFCA Decision Document by facility type is discussed below. Appendix E-4 presents a template for development of the RFCA Decision Documents that is applied using a graded approach for a PAM, IM/IRA, or DOP.

#### 5.3.5.1 Type 1 Facility RFCA Decision Documents

Decommissioning of facilities classified as Type 1 (uncontaminated) based on a final reconnaissance level characterization report do not require any additional RFCA Decision Documents other than the DPP and can proceed based on plant procedures and infrastructure. However, if contamination is discovered during decommissioning of a facility classified as Type 1, decommissioning activities in the affected areas **SHALL** cease until the LRA is notified and the potential need to reclassify the facility is collaboratively considered.

Discovery of contamination after the determination that the facility is Type 1 ***may*** not necessarily result in the need to reclassify a facility into the Type 2 classification. If contamination can be removed by methods in which there is no threat of release of a hazardous substance to the environment, for example by simply cutting out the fixed contamination, the facility ***may*** remain as Type 1. Contamination **SHALL** be cleaned up and properly disposed using existing radiological and hazardous waste management procedures.

Reclassification as a Type 2 facility **SHALL** be considered in any instance where removal techniques involve a threat of release of a hazardous substance (as determined by the consultative process with DOE and the LRA) to the environment.

No further regulatory involvement for Type 1 facilities is required for facilities containing asbestos, provided the project team follows the requirements of the Site asbestos management program.

For Type 1 facilities containing PCBs that are not contaminated with radioactive materials, no further regulatory involvement is required, provided the project team follows the requirements of the Site PCB management procedures. In this case, no further RFCA Decision Documents are required and the waste is managed in accordance with regulatory and procedural documents.

### 5.3.5.2 Type 2 Facility RFCA Decision Documents

The decommissioning in a Type 2 facility is performed pursuant to the development of an approved, facility-specific (or cluster-specific) PAM or IM/IRA. In some special cases, a DOP ***may*** be used for Type 2 facilities. PAMs are applied when the project execution can be completed within 6 months and IM/IRAs are applied when the execution time is 6 or more months. The process for approval of PAMs and IM/IRAs, and the required contents for each, are presented in RFCA paragraphs 106 and 107, respectively. DOPs follow the IM/IRA approval process. The template, table of contents, and document preparation guidance for developing a RFCA Decision Document for a Type 2 facility are provided in Appendix E-4. Using a graded approach, this template is tailored for a PAM, IM/IRA, or DOP as discussed with the LRA in the joint scoping meeting.

The Project Team **SHALL** prepare the PAM, IM/IRA, or DOP and submit it to DOE/RFFO for review and approval. After comment resolution and DOE/RFFO approval, DOE may submit the PAM to the LRA and release it for public comment. DOE submits the draft IM/IRAs or DOPs to the LRA fourteen days before releasing them for public comment. DOE and the LRA will agree in advance to the length of the public comment period. Following resolution of the public comments, a responsiveness summary is prepared and the PAM, IM/IRA, or DOP is revised, if necessary, and approved by the LRA. The draft RFCA Decision Documents, responses to official regulatory comments, formal responsiveness summaries, and the final RFCA Decision Document (PAM, IM/IRA, or DOP) are placed in the project-specific administrative record file.

### 5.3.5.3 Type 3 Facility RFCA Decision Documents

The decommissioning of each Type 3 facility is performed pursuant to the development and approval of an individual DOP for the facility or facility cluster. The DOP is prepared and approved in accordance with the RFCA IM/IRA approval process. The DOP contains sufficient information so the regulators can be satisfied that the project can proceed compliantly, with a high probability of success. Support facilities associated with a major project may be included in the DOP if they can be managed in the same project.

The template, table of contents, and document preparation guidance for RFCA Decision Documents (including DOPs) are provided in Appendix E-4. Using a graded approach, this template is tailored for a DOP as discussed with the LRA in the joint scoping meeting.

The Project Team **SHALL** prepare the DOP and submit it to DOE/RFFO for review and approval. After comment resolution and DOE/RFFO approval, DOE submits the draft document to the LRA fourteen days before releasing it for public comment in accordance with the RFCA "IM/IRA approval process". DOE and the LRA will agree in advance to the length of the public comment period. Following resolution of the public comments, a responsiveness summary is prepared and the DOP is revised, if necessary, and approved by the LRA. The draft RFCA Decision Document, responses to official regulatory comments, formal responsiveness summaries, and the final RFCA Decision Document (DOP) are placed in the project-specific administrative record file.

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# CHAPTER 6
# PROJECT EXECUTION

## 6.0 PURPOSE

The purpose of this chapter is to present the requirements and guidance for performing activities in the project execution phase of the project, following completion of the Phase II Planning and Engineering. The objective of this phase is to complete the work preparations and then execute all planned work.

## 6.1 OVERVIEW

The activities performed in this chapter include executing the procurement contracts finalized in Chapter 5, demonstrating a readiness to proceed, and executing the actual physical work activities within the major headings of Site Preparation, Dismantlement, Demolition, and Transition to Environmental Restoration. The Decision Document and Project Execution Plan finalized in Chapter 5 contain the methods and schedule of performance for the work.

Site Preparation activities include mobilization, isolation of building services, installation or removal of services as needed for the project. Dismantlement includes removal of process equipment and the equipment and services that directly support it. In-process characterization is performed during Dismantlement with the resulting documentation being formatted to support the Pre-Demolition survey. Building Surface Decontamination is the preparation and documentation for Demolition. The surveys generated during Building Surface Decontamination are compiled with the appropriate in-process characterization data to form the Pre-Demolition Survey. Demolition includes the physical work to bring the facility to the slab (defined as the footprint or pad that is left following demolition).

The final step in project execution prior to close out is the transition to environmental restoration. This includes surveying and documenting the slab(s) and verifying that any under slab contamination is acceptable to leave for future environmental restoration. The Site's Environmental Restoration organization participates in the review of the results of the sampling. This will determine if immediate action is necessary.

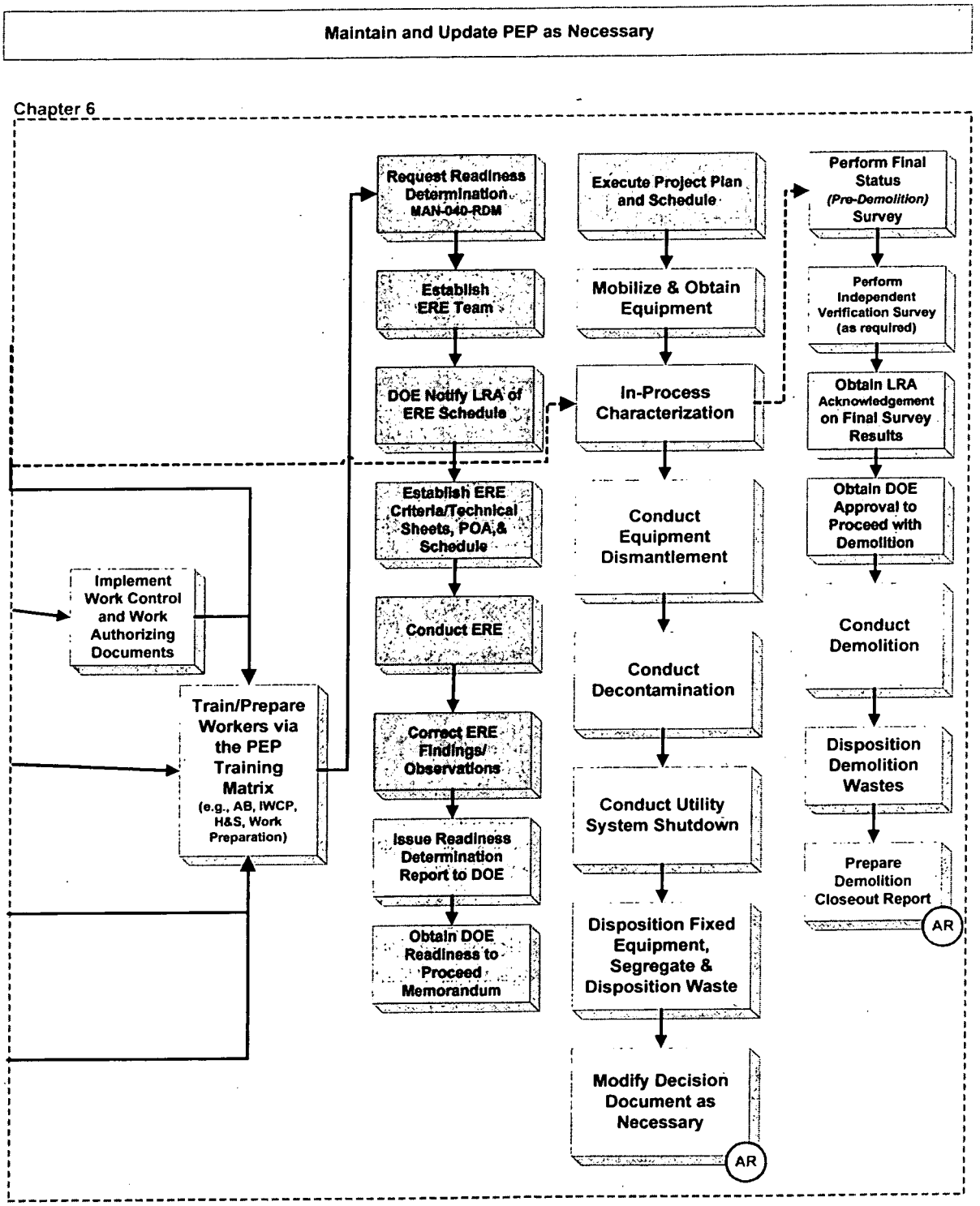
During project execution, the Project Execution Plan (a living document) and its applicable supporting plans are updated periodically with the changing information found during the in-process characterization and above listed activities.

Waste is managed in accordance with the Project's Waste Management Plan contained in the Project Execution Plan. As new information is obtained that significantly impacts the categorical generation rates, the Site's Waste Management Organization is notified of this impact.

## 6.2 PROCESS LOGIC FLOW

The activities involved in the project execution phase are shown in the process logic flow diagram in Figure 6-1.

# Figure 6-1
# PROJECT EXECUTION
# PROCESS FLOW DIAGRAM



## 6.3 REQUIREMENTS

For Type 1 facilities, many of the steps and requirements described below are eliminated. For all facility types, the DPP is a RFCA Decision Document that is used in the preparation of any additional facility specific Decision Documents, if required. In accordance with the DPP, decommissioning of buildings classified as Type 1 (uncontaminated) based on a final reconnaissance level characterization report will not require additional RFCA Decision Documents (other than the DPP) and will proceed based on plant procedures.

However, if contamination is discovered during decommissioning of Type 1 facilities, decommissioning activities **SHALL** cease in the affected areas, until the LRA is notified and the potential need to reclassify the facility is considered collaboratively.

Reclassification from a Type 1 to a Type 2 facility **SHALL** be considered in any instance where removal techniques may involve a threat of release of a hazardous substance (as determined by the consultative process) to the environment.

Decommissioning of Type 1 facilities is therefore, simplified to a commercial-type facility removal project. Decontamination by definition is not required, and no pre- or post- demolition survey report is required. In addition, a project-specific administrative record file is not required for Type 1 facilities. The Reconnaissance Level Characterization Plan and Report with LRA concurrence regarding the facility type (if provided per section 3.4.4 of the DPP) and the project close-out report **SHALL** be included in the administrative record as a project-specific AR file. These documents will support the final Corrective Action Decision/Record of Decision (CAD/ROD) for the appropriate OU.

Project execution utilizes the documentation generated in accordance with the previous chapters of this manual. Governing Site requirements **SHALL** also be followed during the execution of the project. For example, the subcontractors **SHALL** perform the work in accordance with the Conduct of Operations Manual, MAN-066-COOP. That is, follow the established procedures, conduct the required pre-evolution briefings, utilize a work force trained and qualified for the job, and conduct plan-of-the-day meetings.

Maintaining a safe working environment and a safety awareness culture is paramount to the success of the project and the Kaiser-Hill Team. The performance subcontractor **SHALL** have, and comply with, a Health and Safety Plan approved by the Kaiser-Hill team. The RFETS Health and Safety Practices Manual provides additional requirements for Site specific working conditions with which each subcontractor **SHALL** comply.

Job specific radiological safety is enhanced by the use of the RFETS Radiological Control Manual. Subcontractors **SHALL** execute the work in accordance with this manual. As part of this process the performing subcontractor **SHALL** submit the project work instructions, with the potential of encountering levels of radiological contamination above background, to the appropriate Radiological Control Organization so that a Radiological Work Permit, tailored to the projected working conditions, ***may*** be generated. The subcontractor **SHALL** follow the established Radiological Work Permit(s).

Maintaining a safety awareness culture is enhanced through the use of the principles of the Integrated Safety Management System (ISMS). These principles are implemented through the

Integrated Work Control Program, reference Chapter 5. All work plans **SHALL** be reviewed with the employees performing the work. Comments from the employees on these plans **SHALL** be considered. After the work plans are finalized, the work steps **SHALL** be reviewed with employees (this **Should** occur not later than the pre-evolution briefing).

### 6.3.1 K-H READINESS DETERMINATION

The project team performs a Readiness Determination in accordance with the Readiness Determination Manual to ensure that the project is ready to be performed or executed. DOE/RFFO performs an appropriate evaluation to assess the Kaiser-Hill team's ability to start/restart activities and facilities commensurate with the nature of the activity, the intensity of the associated hazards, previous demonstration of overall level of readiness to perform non-core activities, and the level of recent experience in performing the activity. To ensure that the Readiness Determination is adequately funded, the subcontractor Project Manager **SHALL** prepare project technical description sheets (the format is provided in the Readiness Determination Manual), with a recommended level of Readiness Demonstration and approval authority, and submit them to the Kaiser-Hill Project Manager. The Kaiser-Hill Project Manager **SHALL** agree to the level of Readiness Demonstration that is adequate for the project, and **SHALL** ensure that the package is submitted to DOE/RFFO for review. DOE/RFFO then reviews the package and forwards the decision back to Kaiser-Hill. In this way the Readiness Determination may be appropriately budgeted and approval authority is clearly decided or agreed upon.

After all decommissioning project regulatory and operational documentation is approved and the performing subcontractor has trained its personnel to the appropriate level of qualification, the performing subcontractor Project Manager **SHALL** ensure that the objectives for operational readiness, as listed below, are satisfied. When these objectives are satisfied, the Project Manager **SHALL** prepare the Readiness Certification Memorandum and forward it to the subcontractor President for approval.

#### 6.3.1.1 Conduct Personnel Training

All training conducted for the project execution **SHALL** be in accordance with the Training Users Manual 96-RF/T&Q-0005.

If the Kaiser-Hill team determines that a RCRA unit will be managed in full compliance with RCRA, i.e., the substantive and administrative requirements, then the unit owner, unit custodian, and inspectors **SHALL** be trained in accordance with the RCRA Part B Permit.

In addition, if K-H Team bargaining unit employees are performing physical work, then these workers **SHALL**, at a minimum, be trained the courses defined for the "D&D Worker" classification. If the hands-on work is **NOT** being performed by Kaiser-Hill Team Bargaining Unit employees, then these workers **SHALL**, at a minimum, be trained with the courses of equivalent content to that of the "D&D Worker" classification, as approved by a Kaiser-Hill Team Training Coordinator. The core training requirements for D&D Workers are presented in Appendix F-1.

### 6.3.1.2 Conduct Graded Project Readiness Determination

Kaiser-Hill conducts a graded approach Readiness Determination in accordance with the Readiness Determination Manual 1-MAN-040-RDM. The following summarizes the objectives of the Readiness Determination:

- The activities can be conducted within the approved safety and authorization basis,
- The systems, structures, and components that are important to safety are identified and are in a condition to assure an acceptable level of safety,
- Operational or work procedures are identified and are adequate to control the processes and assure an acceptable level of safety,
- Personnel have adequate levels of knowledge, qualifications, and experience such that satisfactory formality of operations will be assured, and
- Necessary support infrastructure is adequate to conduct the activity safely
- All environmental concerns from the ESS organization have been addressed.

When the project is ready to be subjected to the Readiness Determination, the principal subcontractor President **SHALL** issue a Readiness Certification Memorandum, accompanied by an Implementation Plan that certifies that the activity is ready to commence operations with the existing personnel, equipment, and procedures. This Memorandum **SHALL** be forwarded to the Kaiser-Hill Operational Organization Vice President.

The Kaiser-Hill Operational Organization Vice President **SHALL** endorse the Readiness Certification Memorandum and forward it to DOE/RFFO Deputy Manager of Technical Programs and the Kaiser-Hill Independent Safety Oversight Division Manager.

The Environmental Compliance Division of DOE/RFFO conducts a graded ERE, as appropriate. DOE prepares, reviews, and approves a letter to Kaiser-Hill stating the disposition. Decommissioning operations are authorized after any conditions to be corrected are completed.

The extent and complexity of the Readiness Determination can be obtained by following the Guidance Tree in Appendix 4 of the Readiness Determination Manual 1-MAN-04-RDM. It may be as simple as a Management Review by the Kaiser-Hill Team, or as complex as a Readiness Review up to and including Operational Readiness Review by Kaiser-Hill and the Department of Energy.

### 6.3.1.3 Preparation For Physical Work

To demonstrate readiness, the subcontractor will have already mobilized forces. Due to the comprehensiveness of most Readiness Determinations, the duration for the activity will likely be greater than several working days. This time may be used by the subcontractor to refine the detailed project schedule, develop the daily planning sheets, and brief personnel on all project and other required documentation, especially the work control procedures developed to complete the project. In the spirit of Integrated Safety Management, familiarizing personnel with floor plans, work sets, area specific hazards and mitigating factors, performing walk-throughs of the project schedule, as it relates to the different work sets, updating briefings on radiological and hazardous waste control requirements, as well as authorization basis document requirements, may also be helpful. In addition, equipment could be staged, offices and break areas established, and plan-of-the day forms and meetings formulated.

## 6.3.2 COMMENCEMENT OF EXECUTION ACTIVITIES

***Note:*** *The bullet lists provided in this section are not intended to be all-inclusive, but rather examples of the types of activities that may be required to be performed.*

After demonstrating the readiness to proceed, the project is ready to initiate physical decommissioning activities, in accordance with the Project Execution Plan (and other project documentation). The commencement of project execution activities normally begins with the isolation of Building Services including activities such as disconnecting the facility from as many plant services as possible prior to dismantlement, such as:

- Fire suppression water lines
- Electrical power lines
- Natural gas lines
- Process waste lines
- Steam supply and condensate return lines
- Telephone lines
- Local Area Network lines
- Water and sewer lines

The following activities related to installation and/or removal of services, systems, facilities, or hazards can also occur prior to or during physical dismantlement of the building:

- Temporary installation of services needed to support project operations that in some cases are temporary alternatives to services to be taken out for project efficiencies. For example, installation of power to offices and work areas to support lighting and decommissioning equipment that ***may*** be disconnected at the main switch gear, to avoid multiple costly Lock Out/Tag Outs.
- Removal of all exposed electrical distribution cables, conduit, panels, fixtures, devices, and trays that can be removed prior to dismantlement operations.
- Removal of all non-load bearing partitions and walls and false ceilings constructed of wood, transite, and wallboard in accordance with the facility authorization basis (non-credited fire barriers).
- Removal of HVAC ducts not important to safety, outlets, and hangers that can be removed prior to dismantlement operations.
- Removal of all fire protection systems that can be removed prior to dismantlement operations.
- Removal of all windows, glass and frames constructed of combustible material that can be removed prior to dismantlement operations.
- Removal of all combustible material and loose metal in the area.
- Removal of asbestos, asbestos waste, or asbestos abatement, which **SHALL** be:
  - ◊ Performed by a licensed asbestos abatement contractor,
  - ◊ In compliance with Colorado Air Quality Control Commission Regulation 8, *Control of Hazardous Air Pollutants* (SCCR-1001-10), and
  - ◊ Packaged and disposed of in accordance with Site (refer to Waste Management Section below) and State regulations.

### 6.3.3 DISMANTLEMENT

As discussed in Chapter 2, Deactivation and/or Major Hazard Reduction occurs ahead of Dismantlement. A partial list includes activities such as: removal of excess chemicals, tooling, empty cabinets, office furniture, miscellaneous tooling, excess equipment, the draining and dispositioning of liquid wastes, stabilization of contamination where appropriate, disposition of records, and wiping of gloveboxes, to name a few. (Refer to Chapter 2 for a more complete listing.)

Deactivation and Major Hazard Reduction are activities that remove all the loose equipment and other contents from process equipment, leaving a "shell" of process equipment in preparation for dispositioning in Dismantlement. Dismantlement removes all the process equipment and performs in-process characterization within the facilities in preparation for decontamination of the areas within the facility "shell." Building Surface Decontamination and documentation of surveys for the Final Pre-Demolition Survey prepares the facility "shell" for Demolition.

Dismantlement includes removing process equipment, closing remaining RCRA units, removing all remaining distributed systems (utilities), performing in-process characterization, and decontaminating all facility surfaces that are above the release criteria. These activities **SHALL** be performed in accordance with the Decision Document, Project Execution Plan, and work control procedures.

#### 6.3.3.1 In-Process Characterization

In-process characterization is performed to evaluate on-going decommissioning activities in preparation for facility disposition. This characterization is performed to assure that adequate data is obtained for waste management, transportation, and building surface decontamination (for facility dispositioning) purposes. This characterization also aids in identifying new hazards uncovered during the Dismantlement strip out operations that were not identified in the RFCA Decision Document. If this occurs, cease operations in the affected areas, contact DOE/RFFO, and initiate the consultative process. Although a formal report is not required for this phase of characterization, the DQOs and decision rules for radionuclides, asbestos, RCRA constituents, and other constituents of concern, contained in the *Decontamination and Decommissioning Characterization Protocol Manual*, **SHALL** be followed.

The decontamination work will be closely related with the operations support of characterization and final characterization survey reports. This work carries the highest cost and schedule risk since the exact amount of work required can not be determined until the final survey work is finished. This work will involve packaging of building materials, characterization, removal of surface coatings, scabbling of concrete surfaces, and decontamination of building surfaces.

#### 6.3.3.2 Pre-Demolition Final Survey Report

The data obtained from sampling and surveys during Dismantlement **SHALL** be retained, tabulated, and summarized in the Pre-Demolition Final Survey Report format. An annotated outline of the Final Survey Plan and Report are presented in Appendices D-1 and D-2 of this manual and described in detail in the *Decontamination and Decommissioning Characterization Protocol Manual.*

The documentation of the Pre-Demolition Final Survey Report results in a RFCA-mandated report. This report **Should** provide data on the nature and extent of radiological and chemical contamination after Dismantlement (including decontamination). The Final Survey Report **SHALL** describe the results of quality control measurements, performance audits, system audits, and confirmation sample comparisons performed for each sampling and analysis task.

The minimum sampling requirements for the nonradioactive contaminants of concern, as well as the methods required to determine the chemistry of the samples is described in *Decontamination and Decommissioning Characterization Protocol Manual*. The radiological field measurement methods and instrumentation guidelines in this document are derived from NUREG 1575, Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) guidelines, Sections 5.5, 6, and 7.

### 6.3.4 DEMOLITION

After completing Dismantlement, the last steps prior to Demolition include: completion of the Final Status/Demolition Survey, an internal requirement in some cases to obtain a Demolition Permit (to which the Final Status Survey is attached), and a Site Requirement (for Types 2 and 3 facilities only) to perform an Independent Verification of the Final Status/Demolition Survey.

On an as needed basis, DOE may elect to verify that the results from the Final Status/Demolition Survey meet acceptable release standards. Independent review of documentation, survey, and sampling data may be conducted to confirm that requirements identified in the characterization plans were implemented and that characterization was performed within control requirements and tolerances.

The Asset Disposition Decision that was made and agreed upon during the Scoping phase is finalized prior to Demolition. DOE/RFFO must determine and document a decision regarding the demolition or reuse of structures designated as either real or personal property prior to facility demolition. This includes all facilities planned for decommissioning. The Kaiser-Hill Team Project Manager verifies that an asset disposition package has been submitted and letter of approval by DOE/RFFO Realty Officer has been obtained. This decision/approval **SHALL** be granted prior to building demolition.

In accordance with the Decommissioning Program Plan and RFCA Decision Document, at the conclusion of Dismantlement and preparation of the Pre-Demolition Final Survey Report, Site personnel will confirm their activities have achieved the release standard for the completion of building disposition for buildings that are demolished. Kaiser-Hill, DOE/RFFO, and in some cases (e.g., Type 3 Facilities) the LRA verifies when the release standards are achieved. Once this is achieved, Facility Demolition ***may*** occur.

Demolition consists of removing the remainder of the physical structures, monitoring for releases during demolition, and dispositioning the resulting waste streams. Specific demolition activities include:

- Removal and disposition of roof top equipment.
- Removal of roofing material down to the primary roof barrier (concrete slab or steel sheet.
- Removal of equipment attached to the building walls or adjacent to the building.

- Removal of Structures
- Rubblizing of the walls and loading and transport to a sanitary landfill.
- Some separation of structural steel from the concrete rubble, but only as necessary to facilitate loading, hauling, and removal from the Site.

The Principal Subcontractor Project Manager **SHALL** prepare and submit a Demolition Closure Report to the Kaiser-Hill D&D Division Manager to be forwarded to DOE/RFFO and on to the Lead Regulatory Agency. The Demolition Closure Report **SHALL** be placed in the project-specific Administrative Record File.

### 6.3.5 TRANSITION TO ENVIRONMENTAL RESTORATION

Prior to the initiation of decommissioning activities, monitoring efforts (monitoring for surface water, groundwater, and air) are required to establish the baseline conditions that exist in the Industrial Area. This effort is coordinated with the K-H WRO (Restoration Projects) and ESS organizations. To establish good baseline conditions, this effort **Should** occur very early in the decommissioning scoping phase and **SHALL** be incorporated into the IMP update.

The K-H WRO (Restoration Projects) and ESS organizations **Should** be integrated into decommissioning project scoping to develop an understanding of the project, such as type of contaminants expected in the building in order to decide whether adequate monitoring is in place to establish the baseline conditions; to decide what part of the structure will be left at the end of decommissioning; and to define the anticipated role of the Restoration Projects at the end of decommissioning.

Following decommissioning, the area will either be evaluated for the ER ranking or have no further action justification documentation prepared.

### 6.3.6 WASTE MANAGEMENT

Waste Management for the project is performed in accordance with the PEP, RFCA Decision Document, Waste Management Plan, and Site procedures specifying packaging and handling requirements. The Site Waste Management Organization **SHALL** be notified of an estimated project waste generation, by category (i.e., low level, low level mixed, sanitary, transuranic, transuranic mixed, and hazardous). If, during the in-process characterization or at any time during the execution phase of the project, the estimated waste generation rate changes significantly, the Principal Subcontractor Project Manager **SHALL** notify the Site Waste Management Organization of that change. In addition, the Waste Management Plan **SHALL** be updated to reflect the significant changes in generation rates.

Waste containers are procured following the criteria specified in the Waste Management Plan. All wastes **SHALL** be generated, managed, certified, and dispositioned in accordance with the following procedures, as appropriate:

- Hazardous Waste Requirements Manual 1-10000 HWR
- Transuranic (TRU) Waste Management Manual 1-MAN-008-WM-001
- Low Level Waste Management Plan 94-RWP/EWQA-0014
- Waste Characterization Generations and Packaging, 1-PRO-079-WGI-001

- Transportation Manual
- TSCA Management Plan
- Offsite Waste Management Program, 1-MAN-037-OWMP

All government property, real or personal, must be accounted for and in some cases ***may*** require special disposition. The project **SHALL** follow the requirements in the Property Management Manual (PMM) 1-MAN-009-PMM. The requirements for Property Disposition are contained in Chapter 5 of the PMM. Before any property can be removed from a facility in any form it must be accounted for. In general, property will either be free released and shipped to PU&D for disposition, shipped from a RFETS contaminated area to another contaminated area in the Department of Energy Complex, or disposed of as waste.

An economic analysis determines whether or not disposal as waste is acceptable or whether free release is economically feasible.

# CHAPTER 7
# PROJECT CLOSE-OUT

## 7.0 PURPOSE

The purpose of this chapter is to present the requirements and guidance for performing activities in the project close-out phase of the project which follow completion of work execution and transition to ER. The objective of this phase is to complete the work preparations and then execute all planned work.

## 7.1 OVERVIEW

Preparation for the acceptance and closeout of all projects begins in the planning phase with definition of project specific acceptance and closeout criteria included in the PEP. The acceptance and closeout criteria **SHALL** define project specific tasks, tests, inspections, approvals, and other documentation necessary for project completion, acceptance, and transfer.

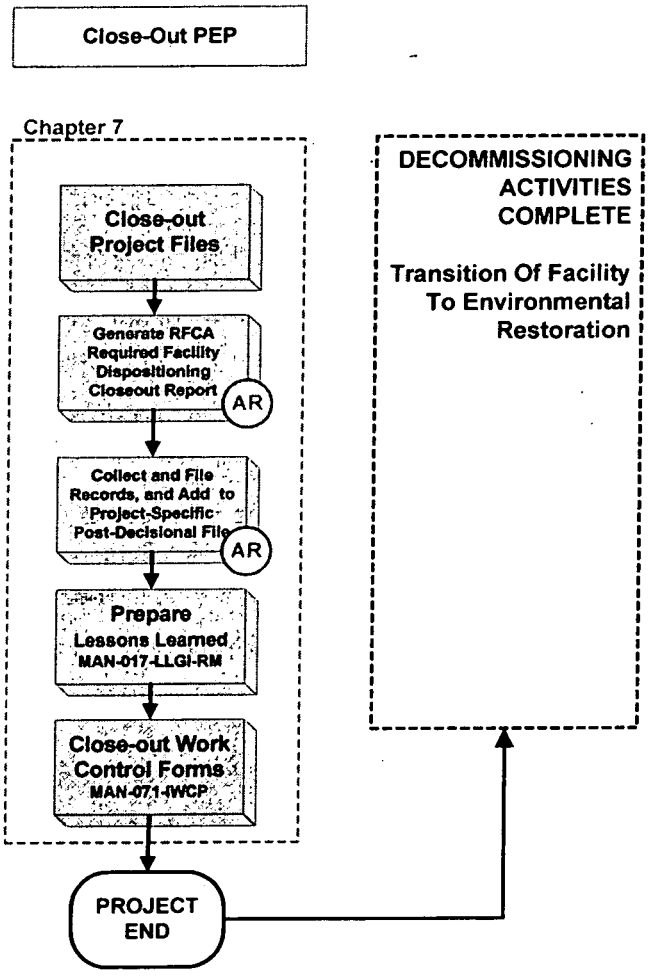
The Project Manager **SHALL** ensure that all project records are complete, current, and retained in a manner that ensures the files can be assembled and provided to the records management organization for proper storage, following project completion. The official and permanent project file **SHALL** be established and maintained by the Project Manager and **SHALL** meet the criteria established during the initial scoping phase in the joint scoping meeting.

The Project files **SHALL** be organized and maintained in accordance with the PEP and Project Strategies, Plans, and Deliverables Matrix provided in Appendices C-1 and A-1, respectively.

## 7.2 PROCESS LOGIC FLOW

The activities involved in the project execution phase are shown in the process logic flow diagram in Figure 7-1.

## Figure 7-1
## PROJECT CLOSE-OUT
## PROCESS FLOW DIAGRAM



## 7.3 REQUIREMENTS

### 7.3.1 PROJECT DOCUMENT CONTROL

Facility Disposition projects and construction projects are documented, tracked, and reported in compliance with all applicable Site requirements. Project Controls are established to ensure documentation continuity, integration, and consistency. Individual documentation requirements and control criteria are established and defined within the PEP on a graded approach by each project. Specific documents that may be required for Facility Disposition and construction projects are provided in Appendix A-1. In-process document control is discussed in Chapter 3.

Applicable project acceptance and close-out documentation for all Facility Disposition projects and construction projects **SHALL** be prepared, approved, and retained in the permanent project file by the Project Manager. Appendices C and G provide examples and templates of the various project acceptance and closeout documentation.

Project close-out tasks are completed as applicable for projects that are canceled prior to completion of the full scope or work. Execution of project close-out, including acceptance testing and final documentation **SHALL** be budgeted, scheduled, and managed as a specific project activity.

### 7.3.2 PROJECT FILES

For all Facility Disposition projects and construction projects, an official and permanent project file **SHALL** be established and maintained by the Project Manager at project initiation. The Project File **SHALL** be properly identified, protected, transmitted, distributed, retained, retrieved, maintained, and dispositioned per the Site's Document Control requirments. Subcontractors ***may*** choose to develop their own project documentation infrastructure, e.g. procedures or desk instructions, or they ***may*** use the approved K-H documentation control infrastructure. If a subcontractor chooses to develop their own project documentation infrastructure for Facility Disposition or assigned construction projects, it **SHALL** conform to the requirements of this manual and be approved by the Division Manager, D&D Projects and Construction, or designee, in writing.

The Project Manager **SHALL** ensure that all project records are complete, current, retained, accepted, and closed out in a manner that meets Site document control requirements. Project files are subject to review and assessment by K-H and DOE/RFFO at any time. For each project, specific acceptance and close-out activities and documentation **SHALL** be defined and executed to ensure acceptable completion of the work scope, complete and auditable documentation, and complete subcontract and financial closure.

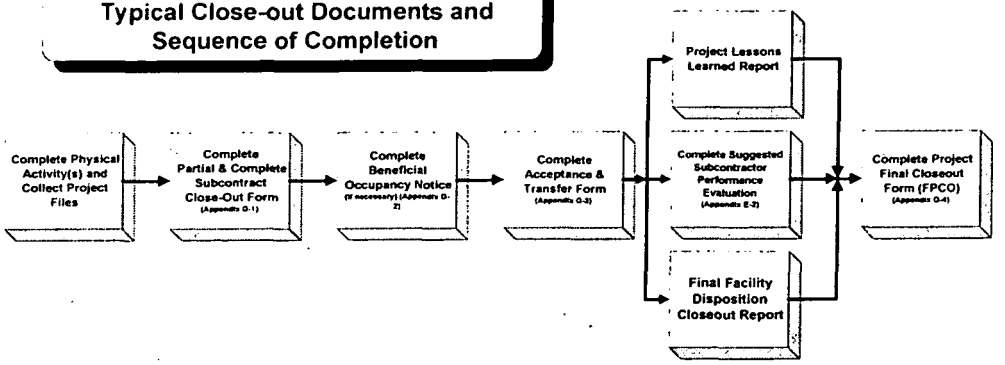
Appendix A-1 provides a project file numbering system that standardizes the method used to help organize and maintain project files and records.

## 7.3.3 FINAL PROJECT CLOSEOUT REPORTS AND DOCUMENTATION

Figure 7-2 provides an overview of the sequence of project closeout documentation. For Facility Disposition and/or construction projects, the following **SHALL** be completed as part of final project close-out:

- Partial And Complete Subcontract Close-Out Form *(Appendix G-1)*
- Project Beneficial Occupancy Notice *(Appendix G-2)*
- Project Acceptance And Transfer Form *(Appendix G-3)*
- Suggested Subcontractor Performance Evaluation *(Appendix E-2)*
- Project Final Closeout Form (FPCO) *(Appendix G-5)*
- Project Lessons Learned Report
- Final Facility Disposition Closeout Report

**Figure 7-2**
**Typical Close-out Documents and Sequence of Completion**




### 7.3.3.1 Partial/Complete Subcontract Closeout Report

The Partial/Complete Subcontract Closeout documentation provides for the partial or complete "financial" close-out of a task or the project. It provides a mechanism for allowing disbursement of funds for partial or fully completed tasks. An example of the Partial/Complete Subcontract Closeout documentation is shown in Appendix G-1.

### 7.3.3.2 Beneficial Occupancy Notice (BON)

The Beneficial Occupancy Notice (BON) document is used to certify that the facility is serviceable for its intended use and is, therefore, "substantially complete". It allows for occupation of the facility, however, there may be some restrictions. Any restrictions are to be identified and placed in writing. Accompanying the BON must be a punch list of remaining activities to be completed, a schedule for completion, and a cost estimate to complete the punch list. See Appendix G-2.

### 7.3.3.3 Project Acceptance and Transfer (PA&T)

Following completion of all activities, including any punch list items and final inspection of the project, the Project Acceptance and Transfer (PA&T) associated with the contract plans and specifications, are verified complete and in compliance to the documents. The system,

facility, etc., is accepted and transferred, as appropriate, to the new landlord/owner. An example of the PA&T is provided in Appendix G-3.

#### 7.3.3.4 Suggested Subcontractor Performance Evaluation

An evaluation of the Subcontractor's performance is performed at the completion of the project. The purpose of this evaluation process is to determine the suitability of the general Subcontractor or lower tier Subcontractor for future contracts. It is recommended that the Suggested Subcontractor Performance Evaluation model shown in Appendix E-2 be used to evaluate subcontractor/vendor performance. The Suggested Subcontractor Performance Evaluation **SHALL** be distributed to the project file, K-H Procurement, K-H Procurement Quality Assurance, and to other interested Site organizations as appropriate and upon request. The suggested Subcontractor Performance Evaluation is provided in Appendix E-2.

#### 7.3.3.5 Project Final Closeout Form (FPCO)

The Project Final Closeout Form is used to verify the following;

- Subcontractors redline drawings are complete and in accordance with the designed scope of work and include all approved filed charges. Red-lined drawings have been received from the sub-contractor.

- All applicable sub-contracts have been accepted as complete, the design and construction management files have been consolidated into the project files and indexed in accordance with the Project File Index/Records Checklist, and a lessons learned letter has been provided to the Closeout Manager for reference on future similar projects, if applicable.

- Ownership of equipment, systems, structures, and components have been transferred to the permanent property custodian, and the project files are ready to be archived.

An example of the FPCO is provided in Appendix G-4.

#### 7.3.3.6 Lessons Learned Report

At completion of a Facility Disposition or construction project, the Project Manager **SHALL** prepare, and submit for record, a Project Lessons Learned Summary Report. Lessons Learned include; 1) a good practice or innovative approach that is captured and shared to promote repeat application, or 2) an adverse work practice or experience that is captured and shared to avoid recurrence. To determine if Lessons Learned should be shared, consider the potential for this deficiency, event, adverse condition or safety issue to exist in, or to affect other buildings, operations, activities or organizations. If the potential exists, the lessons should be shared.

### 7.3.3.7 DECOMMISSIONING FINAL CLOSEOUT REPORT AND DOCUMENTATION

A Decommissioning Closeout Report will be prepared for all decommissioning actions when work and relevant final characterization is completed. The report will consist of a brief description of the work that was completed, including: 1) any modifications to the original decision document; 2) final sampling and analysis report(s); 3) a description of the quantity of remediation and process wastes produced and, 4) a statement, if true, that there were no releases to the environment due to the execution of the project or, if not true, description of the release and the response taken.

The report will state whether, as of the date of the closeout report, the accelerated work is complete. The complexity of the Decommissioning Closeout Report and the level of detail will reflect the scope and duration of the action. An example outline is shown below:

- Introduction
- Action description
- Verification that action goals were met
- Verification of treatment process (if applicable)
- Radiological analysis (if applicable)
- Demolition survey results
- Waste stream disposition
- Deviations from the decision document
- Description of site condition at the end of decommissioning (e.g., slab, basement, etc.)
- Demarcation of excavation (if applicable)
- Demarcation of wastes left in place
- Dates and duration of specific activities (approximate)
- Final disposition of wastes (actual or anticipated)
- Next steps for the area (e.g., decommissioning is complete; facility demolished or ready for reuse; interim monitoring, if required; or transferred to ER Program for any additional action, if required).

A decommissioning closeout report will be prepared for all building decommissioning projects. Only the decommissioning closeout reports for Type 2 and 3 building decommissioning projects will be submitted to the agencies. The DPP requires that upon completion of the relevant final characterization (final status survey), DOE will notify CDPHE, EPA and the public in writing of the completion of decommissioning for a building or group of buildings. DOE will accomplish notification to the public with a letter to the Rocky Flats Citizen Advisory Board. This requirement may be achieved by providing the Rocky Flats Citizens Advisory Board with a copy of the Closeout Report transmittal letter which is provided to the appropriate agencies.

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# CHAPTER 8
# REFERENCES

## 8.0 REFERENCES

CERCLA Administrative Records Program, 1-F78-ER-ARP-001
CERCLA Comprehensive Environmental Responsibility Compensation and Liability Act
Closure Project Baseline
Colorado Air Quality Control Commission Reg. 8, Control of Hazardous Air Pollutants, SCCR-1001-10
Colorado Hazardous Waste Act (CHWA)
Conduct of Operations Manual, MAN-066-COOP
Correspondence Control Program, 1-11000-ADM-003
Davis-Bacon Process, 1-90000-ADM-9.05
Decommissioning Program Plan (DPP) (dated October 8, 1998 and approved November 12, 1998)
Decontamination and Decommissioning Characterization Protocol Manual, MAN-077-DDCP
Hazard Baseline Documentation, DOE-EM-STD-5502-94
Hazard Categorization and Accident Analysis Techniques, DOE-STD-1027-92
Hazardous Waste Operations and Emergency Response, 29 CFR 1910.120
Hazardous Waste Requirements Manual, 1-10000 HWR
Health and Safety Practices Manual
Independent Review Committee, 1-52000-ADM-02.01
Integrated Safety Management System Manual, 1-MAN-016-ISM
Integrated Work Control Program Manual, MAN-071-IWCP
Low Level Waste Management Plan, 94-RWP/EWQA-0014
Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) Guidelines
Nuclear Safety Analysis Reports, DOE Order 5480.23
Nuclear Safety Manual, 1-MAN-018-NSM
Occupational Radiation Protection, 10 CFR 835
Occupational Safety and Industrial Hygiene Program Manual, MAN-072-OS&IH PM
Property Management Manual (PMM), 1-MAN-009-PMM
Radiological Control Manual (Site RCM)
Readiness Determination Manual, 1-MAN-04--RDM
Records Management Guidance for Records Sources, 1-V41-RM-001
Real Property Transition Procedure, 1-PRO-209-RPTP
Resource Conservation and Recovery Act (RCRA)
Rocky Flats Cleanup Agreement (RFCA), July 19, 1996
Rocky Flats Dictionary
Safety Analysis and Risk Assessment Handbook (SARAH), NSTR-RFP-5098
Safety Evaluation Screen, 1-C10-NSM-04.03
Site Engineering Requirements Manual, MAN-027-SERM
Site Lessons Learned Generic Implications Requirements Manual, 1-MAN-017-LLGI-RM
Site Quality Assurance Program (SQAP)
SSOC Unreviewed Safety Question Process, 3-X97-SSOC-USPQ1
Training Users Manual, 96-RF/T&Q-003
Transportation Manual
Transuranic (TRU) Waste Management Manual, 1-MAN-008-WM-001
TSCA Management Plan
Unreviewed Safety Question Determination, 1-C11-NSM-04.05

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# CHAPTER 9
# APPENDICES

**Appendix A**

A-1 Project Strategies, Plans, and Deliverables Matrix

**Appendix B**

B-1 Type 1 Facility Disposition Checklist
B-2 Listing of Facilities by "Anticipated" Type
B-3 Detailed Facility Disposition Process Flow Chart

**Appendix C**

C-1 Project Execution Plan (PEP) Template
C-2 Daily Construction Report
C-3 Monthly Personnel Resource Usage Report
C-4 Construction Progress Photographs

**Appendix D**

D-1 Reconnaissance Level Characterization & Final Survey Plan (RLCP) Template
D-2 Reconnaissance Level Characterization Report & Final Survey (RLCR) Template

**Appendix E**

E-1 Statement of Work
E-2 Instructions for Construction Subcontractor Pool Application and Application for Pre-Qualification, Subcontractor Evaluation
E-3 Decision Document Guidance
E-4 Decision Document Template

**Appendix F**

F-1 Core Training Requirements D&D Worker

**Appendix G**

G-1 Partial And Complete Subcontract Close-Out Form
G-2 Project Beneficial Occupancy Notice
G-3 Project Acceptance And Transfer Form
G-4 Project Final Closeout Form (FPCO)

**Appendix H**

H Glossary & Acronyms

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# APPENDIX A

## Appendix A

### A-1 Project Strategies, Plans, and Deliverables Matrix

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# APPENDIX A-1
## Project Strategies, Plans, and Deliverables Matrix

EXAMPLE

| No. | Phase of Project | Project. File No. | DELIVERABLE | DRIVING DOCUMENT | IMPLEMENTING DOCUMENT | Controlled Document? | DOE Interface (*Info, Review, Approval*) | LRA Interface (*Info, Review, Concurrence,* | Admin. Record? | Project Milestone / | Planned Date of Completion | Date Completed | Comments** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * = Minimum Requirement for a Project, ** State Document Revision in this Section.<br>**PHASE OF PROJECT**: I = Scoping, II = Phase I Planning, III = Phase II Planning & Engineering, E = Execution, CO = Close-out.<br>**IMPORTANT NOTE**: This Table represents a "list" of lists and is currently in a development/re-engineering phase. Some items are duplicates and needed changes will be made in Phase 2 of the FDPM development efforts. Not all items listed are required for every project. PMs will need to carefully review and apply those items that are appropriate for their Project, using a graded approach. DD = Decision Document, EDP = Engineering Design Package, | | | | | | | | | | | | | |
| 1. | II | D-10 | Acceptance Criteria, Quality Assurance Plan | CERCLA, FDPM | | | | | | | | | |
| 2. | II | | Access Reduction Authorization Requirements | | | | | | | | | | |
| 3. | CO | B-10 | Accounting Closeout (ACO) | | | | | | | | | | |
| 4. | III | H | Activity Hazard Analysis Report | | | | | | | | | | |
| 5. | E | J-12 | Additional Decontamination Required (letter) | | | | | | | X | | | |
| 6. | I | | Administrative Record, Establish Record System | RFCA, CERCLA | 1-V41-RM-001, Records Management | | | CDPH E/EPA | X | | | | |
| 7. | II | | Air Quality requirements for the Decision Document, memo | 10CFR 1021 | | | EC/RLG | | | | | | |
| 8. | II | C-2 | Architect/Engineer Correspondence | | | | | | | | | | |
| 9. | E | H | Asbestos Abatement DOE approval to start | | | | RFFO | | X | | | | |
| 10. | E | H | Asbestos Abatement Plan | | | | RFFO | | X | | | | RLCP |
| 11. | E | H | Asbestos Abatement Plan: Letter of submittal to State | | | | RFFO | | X | | | | |
| 12. | III | H | Asbestos Characterization Report | | | | | | X | | | | |
| 13. | I | | Asset Disposition | | | | GO/AMD/ Realty Officer | | | | | | RLCR |
| 14. | II | | Auditable Safety Analysis | | | | | | X | | | | AB |

| No. | Phase of Project | Project. File No. | DELIVERABLE | DRIVING DOCUMENT | IMPLEMENTING DOCUMENT | Controlled Document? | DOE Interface (*Info, Review, Approval*) | LRA Interface (*Info, Review, Concurrence,* | Admin. Record? | Project Milestone / | Planned Date of Completion | Date Completed | Comments** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ** = Minimum Requirement for a Project, ** State Document Revision in this Section.*<br>***PHASE OF PROJECT:*** *I = Scoping, II = Phase I Planning, III = Phase II Planning & Engineering, E = Execution, CO = Close-out.*<br>***IMPORTANT NOTE:*** *This Table represents a "list" of lists and is currently in a development/re-engineering phase. Some items are duplicates and needed changes will be made in Phase 2 of the FDPM development efforts. Not all items listed are required for every project. PMs will need to carefully review and apply those items that are appropriate for their Project, using a graded approach. DD = Decision Document, EDP = Engineering Design Package,* | | | | | | | | | | | | | |
| 15. | II | | Authorization Basis for Decommissioning | DOE O 5480.21/22/23 | | | E/ABG | | | | | | AB |
| 16. | II | | Authorization Basis Implementation Plan | | | | | | | | | | AB |
| 17. | II | | Authorized Activities List, Cluster Decommissioning Project | | | | | | | | | | |
| 18. | I | B-8* | BCP Log/BCPs | | | | | | | | | | |
| 19. | II | | Beryllium Assessment | | | | | | | | | | |
| 20. | II | E-7 | Bid Estimates-Equipment, construction, A/E | | | | | | | | | | |
| 21. | E | G-4 | Bid Evaluations | | | | | | | | | | PEP |
| 22. | I | | Building description and history | RFCA | | | RFFO | CDPH E/EPA | | | | | |
| 23. | I | | CERCLA Implementation, from RCRA to CERCLA | CERCLA | | | | | | | | | |
| 24. | E | E-8 | Change Order Estimates | RFCA, CERCLA | | | | | | | | | |
| 25. | I | | Characterization Cost Estimate, Hazardous Material Characterization and Radiological Characterization | Chemical Compliance Order | RLCR | | | | | | | | |
| 26. | I | | Chemical Inventory Report | | | | RFFO | CDPH E | X | | | | |
| 27. | I | | Chemical Management Plan, Chemical Final Report | | | | | | X | | | | RLCP/RLCR |
| 28. | I | D-3 | Conceptual Design Report | | | | | | | | | | |
| 29. | II | E-3 | Conceptual Design Report Estimate | | | | | | | | | | |

| No. | Phase of Project | Project. File No. | DELIVERABLE | DRIVING DOCUMENT | IMPLEMENTING DOCUMENT | Controlled Document? | DOE Interface (*Info, Review, Approval*) | LRA Interface (*Info, Review, Concurrence,* | Admin. Record? | Project Milestone / | Planned Date of Completion | Date Completed | Comments** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| * = Minimum Requirement for a Project, ** State Document Revision in this Section.<br>**PHASE OF PROJECT:** I = Scoping, II = Phase I Planning, III = Phase II Planning & Engineering, E = Execution, CO = Close-out.<br>**IMPORTANT NOTE:** This Table represents a "list" of lists and is currently in a development/re-engineering phase. Some items are duplicates and needed changes will be made in Phase 2 of the FDPM development efforts. Not all items listed are required for every project. PMs will need to carefully review and apply those items that are appropriate for their Project, using a graded approach. DD = Decision Document, EDP = Engineering Design Package, | | | | | | | | | | | | | |
| 30. | I | H-11 | Construction Communications | | | | | | | | | | |
| 31. | II | H-4 | Construction Field Changes | | | | | | | | | | |
| 32. | I | H-17 | Construction Miscellaneous | | | | | | | | | | |
| 33. | II | H-1 | Construction Notification | | | | | | | | | | |
| 34. | E | H-10 | Construction Redlines | | | | | | | | | | |
| 35. | II | H-7 | Construction Transmittal | | | | | | | | | | |
| 36. | I | | Cost estimate of project | | | | | | | | | | |
| 37. | II | | COOP Matrix | | | | | | | | | | |
| 38. | II | | Criticality Analysis | | | | | | | | | | |
| 39. | E | H-2 | Daily Status Reports/Logs | | | | | | | | | | |
| 40. | II | B-7 | Davis-Bacon Submittal & Determination | 1-900000-ADM-9.05, Davis Bacon Process | Procurement Systems Volume I & II | | | | | | | | |
| 41. | II | | Decision Document Transmittal Letter to CDPHE from DOE | RFCA, FDPM | | | EC/ERW MCPT/R FCA Coord. | CDPH E/EPA | X | | | | |
| 42. | II | | Decision Document Transmittal Letter to DOE from K-H | RFCA, FDPM | | | EC/ERW MCPT/R FCA Coord | CDPH E/EPA | X | | | | |
| 43. | II | J-6 | Decision Document, Based on Facility Type 1, 2, 3 (DOP, IM/IRA, PAM) | RFCA, FDPM | | | EC/ERW MCPT/R FCA Coord | CDPH E/EPA/ Public | X | X | | | |
| 44. | II | | Decision Document. Response to comments from internal, DOE and CDPHE | RFCA, FDPM | | | EC/ERW MCPT/R FCA Coord | CDPH E/EPA/ Public | X | | | | |

| No. | Phase of Project | Project. File No. | DELIVERABLE | DRIVING DOCUMENT | IMPLEMENTING DOCUMENT | Controlled Document? | DOE Interface (*Info, Review, Approval*) | LRA Interface (*Info, Review, Concurrence,* | Admin. Record? | Project Milestone / | Planned Date of Completion | Date Completed | Comments** |
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| 45. | II | | Decision Document: DOP Comment Resolution | RFCA, FDPM | | | EC/ERW MCPT/R FCA Coord | CDPH E/EPA/ Public | X | | | | |
| 46. | II | | Decision Document: DOP for review and comment | RFCA, FDPM | | | EC/ERW MCPT/R FCA Coord | CDPH E/EPA/ Public | X | | | | |
| 47. | II | | Decision Document: DOP, NEPA values section (Section 9.4) prepared by NEPA group for inclusion | RFCA, CERCLA | | | EC/ERW MCPT/R FCA Coord | CDPH E/EPA/ Public | X | | | | |
| 48. | II | | Decision Document: DOP, Public comment resolution RFCAB | RFCA | | | EC/ERW MCPT/R FCA Coord | CDPH E/EPA/ Public | X | | | | |
| 49. | II | | Decision Document: DOP, Submittal of the comment resolution | RFCA | | | EC/ERW MCPT/R FCA Coord | CDPH E/EPA/ Public | X | | | | |
| 50. | II | | Decision Document: Review Comment Record | RFCA | | | EC/ERW MCPT/R FCA Coord | CDPH E/EPA/ Public | X | | | | |
| 51. | II | J-8 | Decision to Execute Project: letter (FDD-3) | | | | | | | X | | | |
| 52. | I | J-1 | Decision to prepare Initial Project Scope: letter (FDD-1) | | | | | | | X | | | |
| 53. | I | | Decision to Prepare Project Execution Plan (FDD-2) | FDPM | | | | | | X | | | |

## APPENDIX A-1 - PROJECT STRATEGIES, PLANS, AND DELIVERABLES MATRIX

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| 54. | I | J-3 | Decision to Proceed with detail planning (letter) | | | | | | | X | | |
| 55. | II | | Decommissioning Project Close-out Plan | RFCA | | | DPL/PPI/ D&D | | X | | | |
| 56. | I | J-5 | Decommissioning Project Initiation Notification Letter | | | | DPL/PPI/ D&D | | X | X | | |
| 57. | II | | Decontamination Plan | DPP | | | DPL/PPI/ D&D | CDPH E/EPA | X | | | PEP/DD |
| 58. | E | J-15* | Demolition Certificate Permit | | | | DPL/PPI/ D&D | CDPH E/EPA | X | | | |
| 59. | E | | Demolition Closeout Report | | | | DPL/PPI/ D&D | | | X | | |
| 60. | E | | Demolition Notification Letter to DOE | | | | DPL/PPI/ D&D | | | | | IWCP/EDP |
| 61. | E | H | Demolition Plan | DPP | | | DPL/PPI/ D&D | | X | | | |
| 62. | II | | Demolition Standard Form 118 | | | | DPL/PPI/ D&D | | | | | |
| 63. | I | | Detailed Project Description | | | | DPL/PPI/ D&D | | | | | |
| 64. | II | | Disposal of Gvmt. Property in accordance with AEA notification letter | | | | DPL/PPI/ D&D | | | | | PEP |
| 65. | I | C-1 | DOE Incoming/Outgoing Correspondence | | | | | | | | | |
| 66. | I | D-9 | Drawings, Calculations, Specifications | | | | | | | | | PEP |
| 67. | I | | Economic Disposal Plan | | | | | | | | | |
| 68. | II | | Emergency Response Plan | | | | | | | | | IWCP/EDP |

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| 69. | II | | Engineering Change Request (ECR) Evaluation (if used) | | | | | | | | | | IWCP/EDP |
| 70. | I | D-4 | Engineering Design Criteria | | | | | | | | | | IWCP/EDP |
| 71. | I | E-4 | Engineering Design Criteria Estimate | | | | | | | | | | IWCP/EDP |
| 72. | II | D | Engineering Design Packages | | | | | | | | | | IWCP/EDP |
| 73. | E | D-7 | Engineering Design Revisions, Engineering Change Request (ECR), Reviews & Approvals, Field Change Orders (FCO), | | | | | | | | | | IWCP/EDP |
| 74. | II | | Engineering Package for Asbestos Abatement | | | | | | | | | | IWCP/EDP |
| 75. | II | | Engineering Package for Demolition | | | | | | | | | | IWCP/EDP |
| 76. | II | | Engineering Package for Strip-out | | | | | | | | | | IWCP/EDP |
| 77. | I | D-8 | Engineering Studies-VE, cost/benefit analysis, etc. | | | | | | | | | | |
| 78. | II | D-1 | Engineering Summary Reports | | | | | | | | | | |
| 79. | I | | Environmental Checklist | | | | EC/RLG | | X | | | | |
| 80. | I | | Environmental Checklist, submittal | ERE by DOE, DOE-STD-3006-95 | 1-MAN-040-RDM Readiness Determination Manual; 2-G21-ER-ADM-18.03, Environmental Readiness Assessment | | | | X | | | | |
| 81. | E | | Environmental Readiness Evaluation (ERE) | ERE by DOE, DOE-STD-3006-95 | 1-MAN-040-RDM Readiness Determination Manual; 2-G21-ER-ADM-18.03, Environmental | | RFFO | CDPH E/EPA | | X | | | |

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| | | | | | Readiness Assessment | | | | | | | | |
| 82. | E | J-10 | Environmental Readiness Evaluation Approval (letter) | ERE by DOE, DOE-STD-3006-95 | 1-MAN-040-RDM Readiness Determination Manual; 2-G21-ER-ADM-18.03, Environmental Readiness Assessment | | RFFO | | X | X | | | |
| 83. | I | | Equipment List Contained in Building | | | | | | | | | | |
| 84. | II | | Evaluation of Environmental Consequences (NEPA) | DPP | NEPA Checklist | | | | X | | | | |
| 85. | I | A-4* | External Status Reports- PTS, 4700.1 Report, etc. (current/final) | | | | | | | | | | |
| 86. | I | C-5 | External-EPA, CDPH&E, Stakeholders, other regulatory agencies correspondence | | | | | | X | | | | |
| 87. | I | | Facility "Type" Determination | RFCA, DPP | DPP | | DPL/PPI/ D&D | CDPH E/EPA | X | | | | |
| 88. | E | J-14* | Facility Release for Reuse or Demolition (letter) | DPP | | | DPL | CDPH E/EPA/ Public | | X | | | |
| 89. | II | | Facility Safety Analysis or Auditable Safety Analysis. | | | | E/ABG | | X | | | | AB |
| 90. | CO | | Final Decommissioning Close-out Report | RFCA/DPP/FDPM | | | DPL/PPI/ D&D | CDPH E/EPA | | | | | RLCR |

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| 91. | II | D-6 | Final Design Basis Document-Title II Design Title II Review-EO, Comments Review Meeting Minutes, Comment/Resolution details, Design Review Record | | | | | | | | | | IWCP/EDP |
| 92. | E | | Final Survey - Post-Demolition (Characterization Report) | RFCA | MARSSIM, RFETS Characterization Protocols | | DPL/PPI/ D&D | CDPH E/EPA | X | | | | RLCR |
| 93. | E | J-11 | Final Survey - Pre-Demolition (Characterization Report) | RFCA | MARSSIM, RFETS Characterization Protocols | | DPL/PPI/ D&D | CDPH E/EPA | X | | | | |
| 94. | E | J-13 | Final Survey (report) Independent Verification | | | | DPL/PPI/ D&D | CDPH E/EPA | | X | | | |
| 95. | E | | Final Survey Pre-Demolition Closeout Report Response to Comments | | | | DPL/PPI/ D&D | CDPH E/EPA | X | | | | |
| 96. | II | | Fire Hazard Analysis (FHA) | | | | | | | | | | AB |
| 97. | | B-2* | Funding Release Documents-Directives, older projects, CNAR/CNAF, DOE Funding Release, etc. | | | | | | | | | | |
| 98. | | H-13 | GFE Information | | | | | | | | | | |
| 99. | I | | Hazard Baseline Document Review Project File | | | | | | | | | | |
| 100. | E | | Health & Safety Program, Subcontractor | | | | | | | | | | |
| 101. | II | | Health and Safety Plan (HASP) | | | | | | X | | | | |

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| 102. | II | | Health and Safety Plan Site Specific | | | | | | X | | | |
| 103. | II | | Health and Safety Plan Subcontractor | | | | | | | | | Subcntr. Contract |
| 104. | I | | Historical Release Report (HRR) | | | | GO/AMD/ OCC/Rea lty Officer | CDPH E/EPA | X | | | |
| 105. | I | | HUD/GSA Economic Evaluation | | | | GO/AMD/ OCC/Rea lty Officer | | | | | |
| 106. | II | | HUD/GSA Risk Evaluation | | | | GO/AMD/ OCC/Rea lty Officer | | | | | |
| 107. | I | | HUD/GSA/NHPA Review Determination | DOE Order 4300.1C, Disposal of Real Property | | | GO/AMD/ OCC/Rea lty Officer | | | | | |
| 108. | I | | Idle Equipment Inventory | | | | | CDPH E/EPA | | | | Consent Order |
| 109. | II | | IHSS or OU Remediation Plan/ Characterization Report | | | | | CDPH E/EPA | X | | | |
| 110. | E | H-5 | Inspection Reports/Acceptance Criteria | | | | | | | | | |
| 111. | E | G-7 | Inspections/Other Reports | | | | | | | | | |
| 112. | | | Integrated Hazard Assessments (AHA, ASA, JHA, JSA, etc.) | | | | PA/SECA D/ABG | | | | | IWCP |
| 113. | II | | Integrated Safety Management Plan | | | | | | | | | |
| 114. | II | H-19 | Integrated Work Control Program (IWCP) Work Package | | | | | | | | | |

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| 115. | I | C-4 | Internal-User, H&S, Inter-dept. correspondence | | | | | | | | | | |
| 116. | I | | Job Hazards Analysis (per IWCP) | | | | | | | | | | IWCP |
| 117. | II | | Justification for Continued Operation (JCO) Plan | 1-MAN-018-NSM | | | | | | | | | |
| 118. | I | B-5 | Key/Critical Decision Requests & Approvals-Includes LOA for older projects | | | | | | | | | | |
| 119. | E | H | Lead Compliance Plan | | | | | | X | | | | PEP/RLCP |
| 120. | I | | Lead Sampling, Building Inspection | | | | | | X | | | | |
| 121. | CO | I-5 | Lessons Learned Summary Report | | | | | | | | | | |
| 122. | I | | Letter requesting characterization of painted surfaces | | | | | | | | | | |
| 123. | I | | McKinney Act Determination: Memorandum from DOE to Kaiser Hill | | | | | | | | | | |
| 124. | I | | Migratory Bird Clearance | | | | | | X | | | | |
| 125. | I | | Milestones for project | | | | RFFO | | | | | | PEP |
| 126. | E | | Mobilization Plan | | | | | | | | | | PEP |
| 127. | I | I-1 | Monthly MCS Reports/VARS (current/final) | | | | | | | | | | |
| 128. | I | I-2* | Monthly Project Summary Report (PSR) (current/final) | | | | | | | | | | |
| 129. | I | | NEPA Determination | | | | EC/RLG | | X | | | | |

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| 130. | I | B-3 | NEPA Documentation- *Checklist, CX, ADM,EA, FONSI, EIS, ROD | | | | EC/RLG | | X | | | | |
| 131. | | | NHPA Determination | | | | PPI/NHPA Coord/MSD/SSD/DAMPPE/AMPPID MTP | | | | | | |
| 132. | II | H-3 | Non Conformance Reports | | | | | | | | | | |
| 133. | E | | Notification to State prior to Demolition | | | | DPL/PPI/D&D | CDPHE/EPA | X | | | | |
| 134. | I | D-12 | Nuclear Safety Documentation | | | | | | | | | | |
| 135. | CO | | Operable Unit final technical memorandum; transmittal letter | | | | | | X | | | | |
| 136. | I | B-1* | ORD/Project Initiation/Request Documents/User Functional Requirements | | | | | | | | | | |
| 137. | CO | B-9* | Partial and/or Final Project Closeout (FPCO) | | | | | | | | | | |
| 138. | I | H-8 | Pay Requests | | | | | | | | | | |
| 139. | I | | PCBs, Memo regarding PCBs evaluation | | | | | | X | | | | |
| 140. | I | I-3 | Performance Indicators | | | | RFFO | | | | | | |
| 141. | I | | Performance Measure Completion Report | | | | RFFO | | | | | | |
| 142. | I | B-12 | Permits/compliance documentation | | | | RFFO | CDPHE/EPA | | | | | |

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| 143. | I | H-16 | Photos | | | | | | | | | | |
| 144. | II | | Pollution Prevention Plan | | | | RFFO | CDPH E/EPA | | | | | |
| 145. | I | D-5 | Preliminary Design Basis Documentation Title I Design Title I Review-EO, Comments, Meeting Minutes, Comment/Resolution details, Design Review Record | | | | | | | | | | |
| 146. | II | | Preliminary Hazards Analysis (PHA) | | | | | | | | | | |
| 147. | I | A-5* | Presentations, Briefings, Special Briefings, etc. (current/final) | | | | | | | | | | |
| 148. | I | G-5 | Procurement Contracts, POs, Change Orders | | | | | | | | | | |
| 149. | I | C-3 | Procurement correspondence | | | | | | | | | | |
| 150. | I | G-8 | Procurement Invoices | | | | | | | | | | |
| 151. | I | G-1 | Procurement Status Report-Requisition and POs | | | | | | | | | | |
| 152. | I | H-9 | Procurement, its Schedules, and Deliveries | | | | | | | | | | |
| 153. | CO | H-18 | Project Acceptance & Transfer (PA&T) | | | | | | | | | | |
| 154. | | F-1* | Project Baseline Schedule & Milestones, Revisions | | | | | | | | | | |
| 155. | E | H-6 | Project Beneficial Occupancy Notice (BON) | | | | | | | | | | |

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| 156. | | A-2 | Project Chronology-Listing of important events, approvals, reviews, special meetings, decision, actions, etc. | | | | | | | | | | |
| 157. | CO | A-6* | Project Closure Comments-Lessons Learned, other final information | | | | | | | | | | |
| 158. | CO | | Project Completion (Critical Decision K-H to DOE ltr) | | | | RFFO | | | | | | |
| 159. | CO | | Project Completion Report | | | | | | X | | | | |
| 160. | | E-1 | Project Data Sheet (PDS) Detailed Estimate- Required for Line Items | | | | | | | | | | |
| 161. | I | F-2* | Project Detailed Working Decommissioning Schedule - level 5 or greater detail | | | | | | | | | | |
| 162. | I | B-6* | Project Execution Plan (PEP) | FDPM | | | DPL/PPI/ D&D | | X | X | | | |
| 163. | I | A-3 | Project Issue Reports | | | | | | | | | | |
| 164. | I | I-4 | Project Issue Reports (current/closed) | | | | | | | | | | |
| 165. | II | | Project Staffing Plan | | | | | | | | | | |
| 166. | I | A-1 | Project Team Organization Chart, Roles and Responsibilities, Core Team and Support Team | | | | | | | | | | |
| 167. | I | | Project Team Organization Structure and responsibilities: Letter to CDPHE | | | | | | X | | | | |

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| 168. | II | | Property Disposition Management Plan | | | | | | | | | | |
| 169. | I | G-2 | Purchase Requistions | | | | | | | | | | |
| 170. | I | | Quality Assurance Program Description | | | | | | X | | | | |
| 171. | II | | Quality Assurance Review | | | | | | X | | | | |
| 172. | II | | Quality Program Subcontractor | | | | | | | | | | |
| 173. | E | | Rad Survey Closeout radiological survey plan | | | | EC/RLG/ OCC/AM EC/DPL | CDPH E/EPA | X | | | | |
| 174. | E | | RCRA Closure Certification | RFETS Part B Permit; RFCA, Attachment 10 | RFETS Part B Permit; RFCA, Attachment 10 | | EC/RLG/ OCC/AM EC/DPL | CDPH E/EPA | | | | | RLCR |
| 175. | II | | RCRA Closure Description Document | RFETS Part B Permit; RFCA, Attachment 10 | RFETS Part B Permit; RFCA, Attachment 10 | | EC/RLG/ OCC/AM EC/DPL | CDPH E/EPA | X | | | | |
| 176. | II | | RCRA Closure Go Ahead Letter | RFETS Part B Permit; RFCA, Attachment 10 | RFETS Part B Permit; RFCA, Attachment 10 | | EC/RLG/ OCC/AM EC/DPL | CDPH E/EPA | X | | | | |
| 177. | E | | RCRA Closure Notification 45 Day | RFETS Part B Permit; RFCA, Attachment 10 | RFETS Part B Permit; RFCA, Attachment 10 | | EC/RLG/ OCC/AM EC/DPL | CDPH E/EPA | X | | | | |
| 178. | II | | RCRA Closure Plan Cover Letter forwarded to CDPHE from DOE | RFETS Part B Permit; RFCA, Attachment 10 | RFETS Part B Permit; RFCA, Attachment 10 | | EC/RLG/ OCC/AM EC/DPL | CDPH E/EPA | X | | | | |
| 179. | II | | RCRA Closure Plan Response to Comments | RFETS Part B Permit; RFCA, Attachment 10 | RFETS Part B Permit; RFCA, Attachment 10 | | EC/RLG/ OCC/AM EC/DPL | CDPH E/EPA | X | | | | |
| 180. | II | | RCRA Closure Plan Transmittal Letter | RFETS Part B Permit; RFCA, Attachment 10 | RFETS Part B Permit; RFCA, Attachment 10 | | EC/RLG/ OCC/AM | CDPH E/EPA | X | | | | |

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| | | | | | | | EC/DPL | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 181. | II | | RCRA Closure Plan, State Approval | RFETS Part B Permit; RFCA, Attachment 10 | RFETS Part B Permit; RFCA, Attachment 10 | | EC/RLG/ OCC/AM EC/DPL | CDPH E/EPA | X | | | | |
| 182. | E | | RCRA Closure Plan: Sample Results | RFETS Part B Permit; RFCA, Attachment 10 | RFETS Part B Permit; RFCA, Attachment 10 | | EC/RLG/ OCC/AM EC/DPL | CDPH E/EPA | X | | | | |
| 183. | II | | RCRA Closure State public comment notice | RFETS Part B Permit; RFCA, Attachment 10 | RFETS Part B Permit; RFCA, Attachment 10 | | EC/RLG/ OCC/AM EC/DPL | CDPH E/EPA | X | | | | |
| 184. | E | | Readiness Demonstration | ERE by DOE, DOE-STD-3006-95 | 1-MAN-040-RDM Readiness Determination Manual; 2-G21-ER-ADM-18.03, Environmental Readiness Assessment | | | | | X | | | |
| 185. | E | J-9 | Readiness Demonstration (report) | ERE by DOE, DOE-STD-3006-95 | 1-MAN-040-RDM Readiness Determination Manual; 2-G21-ER-ADM-18.03, Environmental Readiness Assessment | | E/ABG/D &D | | | | | | |
| 186. | E | | Readiness Determination List | ERE by DOE, DOE-STD-3006-95 | 1-MAN-040-RDM Readiness Determination Manual; 2-G21-ER-ADM-18.03, Environmental Readiness Assessment | | E/ABG/D &D | | | | | | |
| 187. | E | | Readiness Determination Report | ERE by DOE, DOE-STD-3006-95 | 1-MAN-040-RDM Readiness Determination Manual; 2-G21-ER-ADM-18.03, Environmental Readiness Assessment | | E/ABG/D &D | | X | | | | |

## APPENDIX A-1 - PROJECT STRATEGIES, PLANS, AND DELIVERABLES MATRIX

| No. | Phase of Project | Project. File No. | DELIVERABLE | DRIVING DOCUMENT | IMPLEMENTING DOCUMENT | Controlled Document? | DOE Interface (*Info, Review, Approval*) | LRA Interface (*Info, Review, Concurrence,* | Admin. Record? | Project Milestone / | Planned Date of Completion | Date Completed | Comments** |
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| ***IMPORTANT NOTE***: *This Table represents a "list" of lists and is currently in a development/re-engineering phase. Some items are duplicates and needed changes will be made in Phase 2 of the FDPM development efforts. Not all items listed are required for every project. PMs will need to carefully review and apply those items that are appropriate for their Project, using a graded approach. DD = Decision Document, EDP = Engineering Design Package,* | | | | | | | | | | | | | |
| 188. | E | | Readiness to Proceed Memorandum | DOE-STD-3006-95 | | | E/ABG/D &D | | X | | | | |
| 189. | I | | Reconnaissance Level Characterization Plan (RLCP) | RFCA | | | PPI/D&D/ DO Team/SE CAD | CDPH E/EPA | X | | | | |
| 190. | I | J-4 | Reconnaissance Level Characterization Report (RLCR) | RFCA | | | PPI/D&D/ DO Team/SE CAD | CDPH E/EPA | X | | | | |
| 191. | II | | Records Management Plan | | | | GO/EMT/ Records Mgmt | | X | | | | |
| 192. | I | | Report of Excess Property | | | | | | | | | | |
| 193. | II | | Request for Proposal (RFP), and Government Bid Estimate | | | | | | | | | | |
| 194. | II | | Risk Management Plan | | | | | | | | | | PEP |
| 195. | II | | Safety Analysis Comment Resolution Record | | | | | | | | | | |
| 196. | I | H-14 | Safety Construction | | | | | | | | | | |
| 197. | II | | Safety Evaluation Screens (SES) for AB Considerations | | | | | | | | | | |
| 198. | II | | Safety: Auditable Analysis Review | | | | | | | | | | |
| 199. | I | | Sample Results | | | | RFFO | CDPH E | X | | | | |
| 200. | II | | Sampling and Analysis Plan (SAP) for IHSS Final Report | | | | RFFO | CDPH E | X | | | | |

## APPENDIX A-1 - PROJECT STRATEGIES, PLANS, AND DELIVERABLES MATRIX

| No. | Phase of Project | Project. File No. | DELIVERABLE | DRIVING DOCUMENT | IMPLEMENTING DOCUMENT | Controlled Document? | DOE Interface (*Info, Review, Approval*) | LRA Interface (*Info, Review, Concurrence,* | Admin. Record? | Project Milestone / | Planned Date of Completion | Date Completed | Comments** |
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| 201. | II | | SAP for the Hydrogeologic Characterization of IHSS | | | | RFFO | CDPHE | X | | | | |
| 202. | II | | SAP Groundwater Transmittal Letter | | | | RFFO | CDPHE | X | | | | |
| 203. | II | | SAP, Comments by CDPHE | | | | RFFO | CDPHE | X | | | | |
| 204. | II | | SAP, Response to comments from CDPHE | | | | RFFO | CDPHE | X | | | | |
| 205. | II | | SAP: Letter from DOE forwarding SAP to CDPHE | | | | RFFO | CDPHE | X | | | | |
| 206. | I | D-2 | Scope Definition | | | | | | | | | | PEP |
| 207. | I | E-2 | Scope Estimate | | | | | | | | | | PEP |
| 208. | I | J-2 | Scope, Project, Initial (report) | | | | | | | X | | | PEP |
| 209. | I | | Scoping Meeting. Letter transmits minutes | | | | E/ABG/D&D | CDPHE/EPA | X | | | | |
| 210. | II | B-4 | Security Plan-Checklist, Approvals | | | | | | | | | | PEP |
| 211. | E | | Soil Disturbance Permit | | | | | | | | | | |
| 212. | II | | Soil Disturbance Surveys and Report | | | | | | X | | | | |
| 213. | I | I-6 | Special Briefings, PATS, etc. | | | | | | | | | | |
| 214. | II | | Spill Control Plan | | | | RFFO | CDPHE/EPA | | | | | PEP |
| 215. | I | G-3 | Statements of Work | | | | | | | | | | |
| 216. | II | H-12 | Subcontractor Information, Badging, Qualifications | | | | | | | | | | |

## APPENDIX A-1 - PROJECT STRATEGIES, PLANS, AND DELIVERABLES MATRIX

| No. | Phase of Project | Project. File No. | DELIVERABLE | DRIVING DOCUMENT | IMPLEMENTING DOCUMENT | Controlled Document? | DOE Interface (*Info, Review, Approval*) | LRA Interface (*Info, Review, Concurrence,* | Admin. Record? | Project Milestone / | Planned Date of Completion | Date Completed | Comments** |
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| 217. | II | F-3 | Subcontractor Schedules & Revisions-Vendors, Construction Contractors, A/Es, etc. | | | | | | | | | | |
| 218. | CO | H-15 | Subcontractor's Performance Evaluation | | | | | | | | | | |
| 219. | I | G-6 | Submittals | | | | | | | | | | |
| 220. | I | D-13 | Support Requests | | | | | | | | | | |
| 221. | I | | Surface Water Monitoring | | | | RFFO | CDPH E/EPA | | | | | |
| 222. | E,C O | D-11 | Technical Basis Documents (TBD) List; As-Builts, updated TBDs. | | | | | | | | | | |
| 223. | E | | Technical Description Sheets | DOE ERE | Required submittal to DOE to plan for the Readiness Evaluations | | | | | | | | |
| 224. | I | E-5 | Title I Estimate | | | | | | | | | | IWCP/EDP |
| 225. | I | E-6 | Title II Estimate | | | | | | | | | | IWCP/EDP |
| 226. | II | | Training Matrix | DPP | 1-100000-TUM, Training Users Manual | | | | | | | | PEP |
| 227. | II | | Training Plan | | | | | | X | | | | PEP |
| 228. | E | | Training: Employee training records | | | | | | | | | | |
| 229. | I | | Transfer of Cluster from Operations to Decommissioning | | | | | | | | | | |
| 230. | I,E | | Transition Plan | | | | | | | | | | |
| 231. | II | | Transition Plan, Landlord Function | | | | | | | | | | |

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| 232. | II | | Unreviewed Safety Questions (USQs) | 1-MAN-018-NSM 1-C11-NSM-04.05 | | | | | | | | | |
| 233. | I | B-11 | Validation/Justification, Validations Summary Report, & Checklists-ADS, Sched. 44, etc. (current) | | | | | | | | | | |
| 234. | II | E-9 | Value Engineering, Study Estimates | | | | | | | | | | |
| 235. | II | | Waste Management Plan (WMP) | | | | RFFO | | X | | | | |
| 236. | II | | Waste Management Plan (WMP) Memorandum transmitting for review and comment. | | | | RFFO | | X | | | | |
| 237. | II | | Waste Management Plan, Submittal Letter | | | | RFFO | | X | | | | |
| 238. | I | | Waste Stream Residue Identification Characterization (WSRIC) | 40 CFR 261,262 6CCR-1007-3 Part 261, 262 | | | | | | | | | |
| 239. | I | | Work Authorization Document Budget Submittal for Fiscal Year Funding | | | | | | | | | | |
| 240. | II | | Worker Exposure / Emission Controls and Criteria | RFCA; 10CFR 835; 29CFR 1910; DOE 5480.11; DOE ORDER 440.1 | Radiological Control Manual; 1-Q50-RPP-0001 Radiological Protection Program Manual | | | | | | | | |

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# APPENDIX B

## Appendix B Contents

B-1 Type 1 Facility Checklist

B-2 Listing of Facilities by "Anticipated" Type

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# APPENDIX B-1
## Type 1 Facility Checklist

TYPE 1 FACILITY:_____

CURRENT LANDLORD:_____ DATE OF COMPLETION:_____

| ITEM | YES | NO |
|---|---|---|
| Does the facility contain radiological postings? | | |
| Does the facility contain chemical postings? | | |
| Are there any installed hazards? | | |
| Do the historical surveys (radiological and chemical) indicate that the facility is clean? | | |
| Are there RCRA units within the facility | | |
| Is there a written history of the building available? | | |
| Is there any equipment/furniture left in the facility? | | |
| Is there a future mission identified for the facility? | | |
| Will the facility be left unsecured after it is vacated? | | |

If any answer to any of the above questions is "Yes", complete the following questions and complete the "graded" PEP in accordance with Chapter 2.

*Note: An answer of "Yes" to any question, specifically one dealing with hazards, **may** indicate the facility is not a Type 1 Facility. Check with the D&D Programs office.*

If the answer to all questions is "No", complete the "graded" PEP in accordance with Chapter 2.

1. List the Radiological Hazards, location, and quantity:

_____

_____

_____

2. List the Chemical Hazards, location, and quantity:

_____

_____

_____

3. List the Physical Hazards:

_____

_____

_____

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# APPENDIX B-2
## Listing of Facilities by "Anticipated" Type

| FACILITY NUMBER | ANTICIPATED TYPE | FACILITY DESCRIPTION |
|---|---|---|
| **TYPE 3** | | |
| 371 | 3 | PLUTONIUM RECOVERY BUILDING |
| 559 | 3 | PLUTONIUM ANALYTICAL LABORATORY |
| 707 | 3 | PU MANUFACTURING BUILDING |
| 771 | 3 | PLUTONIUM RECOVERY FACILITY |
| 776 | 3 | MFG BUILDING |
| 777 | 3 | ASSEMBLY BUILDING |
| 779 | 3 | PU PROCESS DEVELOPMENT BLDG |
| **TYPE 2** | | |
| 207 | 2 | BLDG 774 UNTREATED WASTE STORAGE TANK 207 |
| 231 | 2 | PROCESS WASTE HOLDING TANK PUMP HOUSE (RCRA Unit 40) |
| 374 | 2 | PROCESS WASTE TREATMENT FACILITY (Unit 42) |
| 378 | 2 | WASTE COLLECTION PUMP HOUSE |
| 428 | 2 | WASTE COLLECTION TANK AND PUMP HOUSE (Unit 40) |
| 429 | 2 | UNDERGROUND PROCESS WASTE PIT (441) (UST 36) |
| 440 | 2 | WASTE STORAGE & REPACK (former MODIFICATION CENTER) |
| 441 | 2 | OFFICES |
| 444 | 2 | MANUFACTURING BUILDING |
| 447 | 2 | MANUFACTURING BUILDING |
| 448 | 2 | U MATERIAL STORAGE |
| 450 | 2 | FILTER PLENUM BUILDING (444) |
| 451 | 2 | FILTER PLENUM BUILDING (447) |
| 455 | 2 | FILTER PLENUM BUILDING (444 PLATING LAB) |
| 528 | 2 | PROCESS WASTE PIT (559) (aka PS-528; aka T-7) |
| 551 | 2 | GENERAL WAREHOUSE & CONTRACTOR SHOP |
| 561 | 2 | FILTER PLENUM BUILDING (559) |
| 566 | 2 | PROTECTIVE CLOTHING DECON FACILITY |
| 569 | 2 | CRATE COUNTER AND WASTE STORAGE FACILITY (Unit 59) |
| 570 | 2 | FILTER PLENUM BUILDING (569) |
| 663 | 2 | STORAGE & SHIPPING BUILDING (JAJ) |
| 664 | 2 | WASTE STORAGE & SHIP FACIL- PACKAGED WASTE (Unit 20) |
| 666 | 2 | TSCA STORAGE BUILDING |
| 668 | 2 | DRUM STORAGE & CERTIFICATION BUILDING |
| 705 | 2 | COATINGS LABORATORY |
| 728 | 2 | PROCESS WASTE PIT (771) - INACTIVE |
| 729 | 2 | FILTER PLENUM BUILDING (779) |
| 730 | 2 | PROCESS WASTE PIT (776) |
| 731 | 2 | PROCESS WASTE PIT (707) |

| FACILITY NUMBER | ANTICIPATED TYPE | FACILITY DESCRIPTION |
|---|---|---|
| 732 | 2 | LAUNDRY WASTE PIT (778) |
| 774 | 2 | LIQUID WASTE TREATMENT PLANT (Units 55 and 56) |
| 778 | 2 | SERVICE BLDG- LKRS & MNTC - FRMR CONT CLOTHES LAUNDRY |
| 782 | 2 | FILTER PLENUM BUILDING (779) |
| 788 | 2 | CEMENTATION PROCESS BLDG. - PONDCRETE OPNS (Unit 48) |
| 828 | 2 | PROCESS WASTE PIT (886) - INACTIVE (aka T-21, T-22) |
| 865 | 2 | MATERIAL & PROCESS DEVELOPMENT LAB |
| 866 | 2 | PROCESS WASTE TRANSFER BUILDING |
| 867 | 2 | FILTER PLENUM BUILDING (865) |
| 868 | 2 | FILTER PLENUM BUILDING ( 865) |
| 875 | 2 | FILTER PLENUM BUILDING (886) |
| 879 | 2 | FILTER PLENUM BUILDING (883) |
| 881 | 2 | MANUFACTURING & GENERAL SUPPORT |
| 883 | 2 | ROLLING & FORMING FACILITY |
| 884 | 2 | WASTE STORAGE (Unit 13) |
| 886 | 2 | NUCLEAR SAFETY/CRITICALITY FACILITY |
| 887 | 2 | SEWAGE & PROCESS WASTE PUMPING/LIFT STATION (S of 881) |
| 906 | 2 | CENTRAL WASTE STORAGE FACILITY |
| 964 | 2 | WASTE STORAGE BUILDING (Unit 24) |
| 966 | 2 | PA DECON PAD (aka 964P) |
| 991 | 2 | PRODUCT WAREHOUSE |
| 996 | 2 | STORAGE VAULT |
| 997 | 2 | STORAGE VAULT |
| 998 | 2 | STORAGE VAULT |
| 999 | 2 | STORAGE VAULT |
| 231A | 2 | PROCESS WASTE HOLDING TANK (aka Tank 241) (RCRA Unit 43) |
| 231B | 2 | PROCESS WASTE HOLDING TANK (aka Tank 242) (RCRA Unit 43) |
| 308A | 2 | SOLAR PONDS PUMP HOUSE (207) |
| 308B | 2 | INTERECEPTOR TRENCH PUMP HOUSE (E of 308B-C) |
| 308B-A | 2 | ITS WASTE STORAGE TANK (aka Tank 341) |
| 308B-B | 2 | ITS WASTE STORAGE TANK (aka Tank 343) |
| 308B-C | 2 | ITS WASTE STORAGE TANK (aka Tank 344) |
| 566A | 2 | PROTECTIVE CLOTHING PLENUM |
| 771C | 2 | NUCLEAR WASTE PACKAGING/DRUM COUNTING FACILITY |
| 774A | 2 | STEAM CONDENSATE HOLDING TANK (aka Tank 178, aka 108T) |
| 881F | 2 | FILTER PLENUM BUILDING |
| 903A | 2 | ER DECONTAMINATION PAD (incl. SHEDS) |
| T122A | 2 | MOBILE DECONTAMINATION SYSTEM TRAILER (S of 122) |
| T760A | 2 | SHOWER TRAILER (PONDCRETE) |
| Tent 2 | 2 | MIXED WASTE STORAGE |
| Tent 3 | 2 | MIXED WASTE STORAGE (SOLAR PONDS) |
| Tent 4 | 2 | MIXED WASTE STORAGE (SOLAR PONDS) |
| Tent 5 | 2 | MIXED WASTE STORAGE |

| FACILITY NUMBER | ANTICIPATED TYPE | FACILITY DESCRIPTION |
|---|---|---|
| Tent 6 | 2 | MIXED WASTE STORAGE (SOLAR PONDS) |
| Tent 7 | 2 | PONDCRETE STORAGE ON 902 PAD (RCRA Unit 15B) |
| Tent 8 | 2 | PONDCRETE STORAGE ON 904 PAD (RCRA Unit 15B) |
| Tent 9 | 2 | PONDCRETE STORAGE ON 904 PAD (RCRA Unit 15B) |
| Tent 10 | 2 | PONDCRETE STORAGE ON 904 PAD (RCRA Unit 15B) |
| Tent 11 | 2 | PONDCRETE STORAGE ON 904 PAD (RCRA Unit 15B) |
| Tent 12 | 2 | PONDCRETE STORAGE |
| **TYPE 1** | | |
| 111 | 1 | GENERAL STAFF ADMINISTRATION |
| 112 | 1 | TELECOM CENTER & OFFICES |
| 115 | 1 | OFFICES & EOC |
| 116 | 1 | OFFICES (DOE) |
| 119 | 1 | SECURITY REPAIR & FITNESS |
| 120 | 1 | GUARD POST (WEST ACCESS) |
| 121 | 1 | SECURITY COMMAND CENTER |
| 122 | 1 | MEDICAL/OCCUPATIONAL HEALTH |
| 124 | 1 | WATER TREATMENT PLANT |
| 125 | 1 | STANDARDS LABORATORY |
| 126 | 1 | SOURCE STORAGE |
| 127 | 1 | EMERGENCY GENERATOR BUILDING (121 and 115) |
| 128 | 1 | VEHICLE SHELTER, PLANT PROTECTION |
| 129 | 1 | WATER TREATMENT (RAW WATER STRAINER) |
| 130 | 1 | PLANT ENGINEERING OFFICES & WAREHOUSE & CAFETERIA |
| 131 | 1 | OFFICES |
| 132 | 1 | ELECTRICAL SUBSTATION #9 |
| 180 | 1 | METEOROLOGICAL DATA COLLECTION STATION (TOWERS & SUPPORT BLDG) (NW) |
| 181 | 1 | METEOROLOGICAL DATA COLLECTION STATION (TOWER) (WOMAN CREEK) |
| 210 | 1 | NATURAL GAS DISTRIBUTION SYSTEM |
| 223 | 1 | NITROGEN SUPPLY FACILITY, INCL. STORAGE TANKS (Tanks 233, 234) |
| 226 | 1 | NaCl BRINE STORAGE TANK (E of 910) |
| 227 | 1 | NITRIC ACID STORAGE TANK (E of 910) (aka Tank 335; aka D-54) |
| 240 | 1 | STEAM CONDENSATE STORAGE TANK (aka Tank 073) |
| 260 | 1 | PERIMETER SECURITY ZONE |
| 262 | 1 | NO. 2 DIESEL FUEL TANK (aka Tank 171; aka D-262) (UST 4) (NE of 381) |
| 280 | 1 | LANDFILL SUPPORT FACILITY |
| 301 | 1 | AMBIENT AIR MONITORING STATION (N of Central Ave, W of Gate 10) |
| 306 | 1 | WATER SAMPLING STATION (Walnut Creek) |
| 331 | 1 | GARAGE & FIRE STATION |
| 333 | 1 | PAINT SHOP & SAND BLAST FACILITY |
| 334 | 1 | GENERAL SHOP (MAINTENANCE), OFFICES, & CREDIT UNION |
| 335 | 1 | FIRE TRAINING BLDG. |
| 367 | 1 | STORAGE SHED, ROAD MTCE & SNOW REMOVAL |

| FACILITY NUMBER | ANTICIPATED TYPE | FACILITY DESCRIPTION |
|---|---|---|
| 372 | 1 | GUARD POST (PORTAL 2) |
| 373 | 1 | COOLING TOWERS AND PUMP HOUSE (371/374) |
| 375 | 1 | GUARD TOWER T -4 |
| 376 | 1 | OFFICES |
| 377 | 1 | AIR COMPRESSOR BUILDING |
| 381 | 1 | FLUORINE STORAGE BUILDING |
| 384 | 1 | B384 COOLING TOWER |
| 427 | 1 | EMERGENCY GENERATOR BUILDING (444) |
| 439 | 1 | MOD CENTER MACHINE SHOP |
| 442 | 1 | HEPA FILTER TEST LABORATORY & WAREHOUSE |
| 443 | 1 | HEATING PLANT |
| 445 | 1 | CARBON STORAGE |
| 449 | 1 | OIL & PAINT STORAGE |
| 452 | 1 | OFFICES |
| 453 | 1 | OIL STORAGE |
| 454 | 1 | COOLING TOWER (444) |
| 457 | 1 | COOLING TOWER (447) |
| 460 | 1 | OFFICES (former CONSOLIDATED NON-NUC. MFG BLDG.) |
| 462 | 1 | COOLING TOWER (460) |
| 515 | 1 | ELECTRICAL SUBSTATION #5 |
| 516 | 1 | ELECTRICAL SUBSTATION #6 |
| 517 | 1 | ELECTRICAL SUBSTATION #7 |
| 518 | 1 | ELECTRICAL SUBSTATION #8 |
| 519 | 1 | ALARM SYSTEMS STORAGE |
| 520 | 1 | SUBSTN 517-518 SWITCHGEAR BLDG |
| 549 | 1 | RCT SHOP & OFFICES |
| 550 | 1 | GUARD TOWER |
| 552 | 1 | BOTTLED GAS STORAGE BUILDING |
| 553 | 1 | WELDING SHOP (JAJ) |
| 554 | 1 | STORAGE & SHIPPING DOCK BUILDING |
| 556 | 1 | METAL CUTTING BUILDING |
| 557 | 1 | GUARD POST |
| 560 | 1 | COOLING TOWER (559) |
| 562 | 1 | EMERGENCY GENERATOR BUILDING (561) |
| 563 | 1 | COOLING TOWER (559) |
| 564 | 1 | OFFICES |
| 575 | 1 | ELECTRICAL POWER STATION |
| 662 | 1 | PLANT POWER WAREHOUSE & OFFICES |
| 679 | 1 | ELECTRICAL SUBSTATION |
| 680 | 1 | ELECTRICAL SUBSTATION |
| 681 | 1 | ELECTRICAL SUBSTATION BUILDING |
| 701 | 1 | WASTE MGMT R&D |
| 702 | 1 | PUMP HOUSE (COOLING TOWER 712) |

| FACILITY NUMBER | ANTICIPATED TYPE | FACILITY DESCRIPTION |
|---|---|---|
| 703 | 1 | PUMP HOUSE (COOLING TOWER 713) |
| 706 | 1 | LIBRARY & OFFICES |
| 708 | 1 | COMPRESSOR BUILDING |
| 709 | 1 | COOLING TOWER (707) (OUT OF COMMISSION) |
| 710 | 1 | STEAM VALVE HOUSE (SW of 701) |
| 711 | 1 | COOLING TOWER (707) |
| 712 | 1 | COOLING TOWER (776, 777, 779A) |
| 713 | 1 | COOLING TOWER (776, 777, 779A) |
| 714 | 1 | HF ACID STORAGE BUILDING |
| 715 | 1 | EMERGENCY GENERATOR #1 BUILDING (771,774) |
| 716 | 1 | EMERGENCY GENERATOR #2 BUILDING (771,774) |
| 717 | 1 | MAGNEHELIC GAUGE BUILDING (NE of 772) |
| 718 | 1 | SERVICE BUILDING, COOLING TOWER 711 |
| 727 | 1 | EMERGENCY GENERATOR BUILDING (782) |
| 750 | 1 | OFFICES & CAFETERIA |
| 761 | 1 | GUARD TOWER |
| 762 | 1 | GUARD POST (PORTAL 1) |
| 763 | 1 | PA BREEZEWAY |
| 764 | 1 | PIDAS DATA COLLECTION BLDG. |
| 765 | 1 | SECONDARY ALARM CENTER |
| 770 | 1 | MAINTENANCE ACTION CENTER/STORAGE |
| 772 | 1 | FLUORINE STORAGE BUILDING |
| 773 | 1 | GUARD POST, CLOSED |
| 775 | 1 | SEWAGE LIFT STATION |
| 780 | 1 | FLAMMABLE STORAGE |
| 781 | 1 | AIR COMPRESSOR BLDG (777) |
| 783 | 1 | PUMP HOUSE, COOLING TOWER (779) |
| 784 | 1 | COOLING TOWER, STANDBY (A, B, C, D) |
| 785 | 1 | COOLING TOWER, PROCESS WATER |
| 786 | 1 | COOLING TOWER, WEST CHILLER (A, B) |
| 787 | 1 | COOLING TOWER, EAST CHILLER (A, B, C, D) |
| 790 | 1 | RADIATION CALIBRATION LABORATORY |
| 792 | 1 | GUARD POST (PORTAL 3) |
| 827 | 1 | EMERGENCY GENERATOR BLDG. (865, 875, 883, 886) |
| 830 | 1 | STORAGE/ISOLATED POWER SUPPLY |
| 850 | 1 | OFFICES |
| 863 | 1 | ELECTRICAL TRANSFORMER BUILDING |
| 864 | 1 | GUARD POST (out of service) |
| 869 | 1 | NATURAL GAS METER HOUSE |
| 880 | 1 | STORAGE BUILDING |
| 885 | 1 | MAINTENANCE/PAINT & OIL STORAGE |
| 888 | 1 | GUARD POST |
| 890 | 1 | PUMP HOUSE |

| FACILITY NUMBER | ANTICIPATED TYPE | FACILITY DESCRIPTION |
|---|---|---|
| 891 | 1 | GROUND WATER TREATMENT FACILITY |
| 901 | 1 | GUARD TOWER |
| 910 | 1 | REVERSE OSMOSIS - EVAPORATOR BLDG |
| 920 | 1 | GUARD POST (EAST ACCESS) |
| 928 | 1 | FIRE WATER PUMP HOUSE |
| 930 | 1 | EFFLUENT MONITOR STATION (990) |
| 931 | 1 | EFFLUENT MONITOR STATION (995, aka Gaging Station #10) |
| 933 | 1 | EFFLUENT MONITOR STATION (Indiana & Walnut Creek) |
| 934 | 1 | EFFLUENT MONITOR STATION (Woman Creek) |
| 971 | 1 | SLUDGE DRYING BED |
| 972 | 1 | SLUDGE DRYING BED |
| 973 | 1 | SLUDGE DRYING BED |
| 974 | 1 | SLUDGE DRYING BED |
| 984 | 1 | SHIPPING CONTAINER STORAGE FACILITY |
| 985 | 1 | FILTER PLENUM BUILDING (996,997,999) |
| 987 | 1 | STORAGE VAULT - PLANT PROTECTION |
| 988 | 1 | TERTIARY TREATMENT PUMP HOUSE |
| 989 | 1 | EMERGENCY GENERATOR BUILDING (991) |
| 990 | 1 | PRE-AERATION BUILDING |
| 992 | 1 | GUARD POST |
| 993 | 1 | SECURITY STORAGE |
| 994 | 1 | EFFLUENT MONITORING STATION (Pond B-4) |
| 995 | 1 | SEWAGE TREATMENT FACILITY |
| 122S | 1 | PAPER SHREDDER/UTILITIES SHED |
| 215A | 1 | DOMESTIC WATER STORAGE (TOWER) (aka Tank 084) |
| 215B | 1 | DOMESTIC WATER STORAGE (aka Tank 085) |
| 215C | 1 | DOMESTIC WATER STORAGE (aka Tank 141) |
| 215D | 1 | EVAPORATION DISTILLATE STORAGE TANK, 500,000 gal (910) (aka Tank 142) |
| 223A | 1 | ERM STORAGE FACILITY (NE of 549) |
| 228A | 1 | DRYING BED (910) |
| 228B | 1 | DRYING BED (910) |
| 331A | 1 | STORAGE (N of 335) |
| 331S | 1 | STORAGE SHED |
| 372A | 1 | PERSONNEL ACCESS CONTROL (PACS-2) (PORTAL 2) |
| 374A | 1 | 371-374 CARPENTER SHOP (S of 374) |
| 427A | 1 | FUEL STORAGE TANK (DIESEL) (aka Tank 068) |
| 566B | 1 | CARPENTER SHOP/STORAGE SHED (E of 566) |
| 709A | 1 | EMERGENCY GENERATOR/PUMP (709) (OUT OF COMMISSION) |
| 711A | 1 | COOLING TOWER EMERGENCY DIESEL PUMP |
| 712A | 1 | NATURAL GAS BUILDING (712, 713) |
| 713A | 1 | STORAGE TANK (PROPANE, 18,377 gal; OUT OF SERVICE) |
| 714A | 1 | HF GAS STORAGE SHED |
| 714B | 1 | EMERGENCV BREATHING AIR BUILDING |

| FACILITY NUMBER | ANTICIPATED TYPE | FACILITY DESCRIPTION |
|---|---|---|
| 762A | 1 | PERSONNEL ACCESS CONTROL (PACS-1) (PORTAL 1) |
| 765A | 1 | RADIO TOWER |
| 770B | 1 | CARPENTER SHOP (sign says 771B) |
| 772A | 1 | ACID STORAGE |
| 774B | 1 | STEAM CONDENSATE HOLDING TANK (aka Tank 177; aka 107T) |
| 780A | 1 | METAL STORAGE |
| 780B | 1 | GAS BOTTLE STORAGE |
| 792A | 1 | PERSONNEL ACCESS CONTROL (PACS-3) (PORTAL 3) |
| 865A | 1 | COOLING TOWER (865) |
| 881CT | 1 | COOLING TOWER (E of 881) |
| 881G | 1 | EMERGENCY GENERATOR BUILDING |
| 883CT | 1 | COOLING TOWER (N of 881) |
| 888A | 1 | ELECTRICAL SUBSTATION |
| 990A | 1 | WASTE WATER TREATMENT |
| C130 | 1 | MAINTENANCE STORAGE BLDG (N of 130) |
| C331 | 1 | STORAGE (N of 331) |
| T111A | 1 | OFFICES |
| T112A | 1 | OFFICES & EMPLOYEE STORE |
| T112B | 1 | OFFICES |
| T112C | 1 | OFFICES |
| T115A | 1 | OFFICES |
| T115B | 1 | OFFICES |
| T115C | 1 | OFFICES |
| T117A | 1 | OFFICES |
| T119A | 1 | OFFICES (DOE/CDPHE) |
| T119B | 1 | OFFICES |
| T120A | 1 | TRAILER (ACCESS CONTROL/BADGING) |
| T121A | 1 | OFFICES |
| T124A | 1 | OFFICES (DOE) |
| T130A | 1 | OFFICES |
| T130B | 1 | OFFICES |
| T130C | 1 | OFFICES |
| T130D | 1 | OFFICES |
| T130E | 1 | OFFICES & COMPUTER-BASED TRAINING CENTER |
| T130F | 1 | OFFICES |
| T130G | 1 | OFFICES |
| T130H | 1 | OFFICES |
| T130I | 1 | OFFICES |
| T130J | 1 | OFFICES |
| T131A | 1 | OFFICES |
| T303A | 1 | OFFICES (Shooting Range) |
| T303B | 1 | OFFICES (Shooting Range) |
| T303C | 1 | OFFICES (Storage Yard) |

| FACILITY NUMBER | ANTICIPATED TYPE | FACILITY DESCRIPTION |
|---|---|---|
| T331A | 1 | TRAILER (BARRACKS) |
| T334B | 1 | OFFICES |
| T334C | 1 | OFFICES |
| T334D | 1 | OFFICES |
| T371A | 1 | OFFICES |
| T371C | 1 | OFFICES |
| T371D | 1 | OFFICES |
| T371E | 1 | RESTROOMS |
| T371F | 1 | OFFICES |
| T371H | 1 | OFFICES |
| T371I | 1 | OFFICES |
| T371J | 1 | OFFICES |
| T371K | 1 | OFFICES |
| T376A | 1 | OFFICES |
| T428B | 1 | TOOL SHED (E of 428) |
| T439A | 1 | OFFICES (N of 439) |
| T439D | 1 | OFFICES (W of 439) |
| T441A | 1 | OFFICES |
| T442A | 1 | OFFICES |
| T452A | 1 | OFFICES |
| T452B | 1 | OFFICES |
| T452C | 1 | OFFICES |
| T452D | 1 | OFFICES |
| T452E | 1 | RESTROOMS |
| T452F | 1 | OFFICES |
| T452G | 1 | RESPIRATOR FIT FACILITY |
| T551A | 1 | OFFICES & LOCKERS (JAJ) |
| T664A | 1 | OFFICES |
| T690N | 1 | OFFICES |
| T706A | 1 | OFFICES |
| T707B | 1 | OFFICES |
| T750A | 1 | OFFICES |
| T750B | 1 | OFFICES & COMPUTER-BASED TRAINING CENTER |
| T750C | 1 | OFFICES |
| T750D | 1 | OFFICES |
| T750F | 1 | LOCKER TRAILER (PONDCRETE) |
| T750G | 1 | BREAK TRAILER (PONDCRETE) |
| T760B | 1 | BUS STOP/CAR POOL SHELTER |
| T771A | 1 | OFFICES |
| T771B | 1 | OFFICES |
| T771C | 1 | SHOWER/LOCKER (JAJ) |
| T771D | 1 | OFFICES |
| T771E | 1 | OFFICES |

| FACILITY NUMBER | ANTICIPATED TYPE | FACILITY DESCRIPTION |
|---|---|---|
| T771F | 1 | OFFICES |
| T771G | 1 | SHOWER TRAILER |
| T771H | 1 | OFFICES (JAJ) |
| T771J | 1 | OFFICES |
| T771K | 1 | OFFICES |
| T771L | 1 | RESTROOMS |
| T779A | 1 | OFFICES |
| T788A | 1 | WASTE STORAGE BLDG (Unit 21) (aka ER in WEMS) |
| T881A | 1 | OFFICES |
| T881B | 1 | OFFICES |
| T883A | 1 | OFFICES |
| T883B | 1 | OFFICES |
| T883C | 1 | OFFICES |
| T883D | 1 | RESTROOMS |
| T886A | 1 | OFFICES |
| T886B | 1 | OFFICES |
| T886C | 1 | OFFICES |
| T891B | 1 | OFFICES |
| T891C | 1 | OFFICES |
| T891D | 1 | OFFICES |
| T891E | 1 | OFFICES |
| T891F | 1 | OFFICES |
| T891G | 1 | OFFICES |
| T891V | 1 | OFFICES |
| T891O | 1 | OFFICES |
| T891P | 1 | OFFICES |
| T891Q | 1 | RESTROOMS |
| T891R | 1 | OFFICES |
| T893A | 1 | OFFICES |
| T893B | 1 | OFFICES |
| T900A | 1 | GROUND WATER TREATMENT TRAILER |
| T900B | 1 | GROUND WATER TREATMENT TRAILER |
| T900C | 1 | GROUND WATER TREATMENT TRAILER |
| T900D | 1 | OFFICES |
| T900E | 1 | GROUND WATER TREATMENT TRAILER |
| T904A | 1 | BREAK TRAILER (PONDCRETE) |
| T974A | 1 | TREATMENT TRAILER |
| Tent 14 | 1 | A-4 POND STORAGE TENT |

Notes:
Descriptions from Site FIMS listing have been shortened to fit the table.
Anticipated Type from D&D Program Office 9/18/98

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# APPENDIX C

## Appendix C Contents

C-1 Project Execution Plan (PEP) Template

C-2 Daily Construction Report

C-3 Monthly Personnel Resource Usage Report

C-4 Construction Progress Photograph

# APPENDIX C-1
## Project Execution Plan (PEP) Template

*D&D Closure Projects Template - 9/22/98*

Kaiser-Hill

# ROCKY FLATS [Project Title] PROJECT

**Draft A**

# *PROJECT EXECUTION PLAN*

Prepared by: [*Project Manager's Name*]
Date:[ ]

*Note: Items italicized & highlighted within this Template represent information or instructions to be addressed or included within that section of the document.*

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Appendix A - Project WBS Dictionary
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FIGURES
*Figure 1: The [Project Title] project results in the removal of XXX.*
*Figure 2: The document hierarchy shows relationship of project documents.*
*Figure 3: The organization structure and functions of the [PROJECT TITLE] project team supports achieving the project vision.*
*Figure 4: The [Project Title] WBS provides a logical basis to organize work.*
*Figure 5: The [Project Title] project Critical Path schedule supports the overall Rocky Flats Closure Project plan. The plan includes all internal and external interfaces.*

TABLES
*Table 1: Potential Problem Analysis identifies the major project risks. Note that these are risks to technical performance, project schedule, or project scope.*
*Table 2: [Project title] activity based work planning requirements define safety process.*
*Table 3: Life Cycle Estimate for the [Project Title] project*
*Table 4: Project document origination, approval, and distribution matrix specifies minimums.*

***NOTES:***

1. This template is for your project team to use as an aid to create an effective Project Execution Plan. We encourage you to apply common sense and the graded approach to include only what is necessary for the customer's of the plan, e.g., your project team and your project customer, at a minimum.
2. The primary purpose of the PEP is to provide guidance to the project team on HOW to work together to achieve project results that satisfy the customer.
3. Unless there is a reason to do otherwise, we recommend that you keep the Level 1 Section headings. This enables easy access for people who are familiar with other RFCP Project Execution Plans. If an entire section does not apply to your project, just list the heading and put 'N/A' below the heading.
4. Please keep the PEP as short as possible. In no instance **Should** it (exclusive of appendices or attachments) exceed 50 pages. Shorter is better.
5. Limit the approvals. In general, only the K-H and subcontractor project managers **Should** approve the plan.
6. Information in *italics* (except the TOC) illustrate the type of information to include in the section. Replace this with information appropriate for your project.

## 1. PROJECT IDENTIFICATION

The [Project Title] Project supports the DOE Strategic Plan by providing [define support provided]. This project is a necessary component of the Focus 2006 plan. It provides [define support provided]. Planning for this project has been included in the Performance Measurement Baseline (PMB), which governs the interface of multiple projects and programs. This project is included as part of the [Program Title] and is part of the overall Rocky Flats Closure Project (RFCP).

Figure 1 illustrates the present condition of the subject of this project.

**Figure 1: The [Project Title] project results in the removal of XXX.**

*[This Section Summarizes The Project Charter]*

### 1.1 VISION

The Vision of the building xyz closure project is to replace the entire xyz with level earth suitable for IHSS remediation and/or placement of the engineered cap.

*[This section lets everyone know the project end state. - one sentence statement of the state at the end of the project; e.g., 'building xxx has been removed and all removal wastes properly treated and disposed.]*

### 1.2 PURPOSE

The purpose of the [Project Title] project is decontaminate, decommission, and demolish buildings xyz and xxz, etc.

*[Purpose - a summary statement from the organization or sponsor outlining why the project is taking place. A purpose statement will typically include the phrases: to supplement; to overcome, to replace, or to change. - single sentence or short paragraph stating why this project team exists...**why** do we have to achieve the vision.]*

### 1.3 MISSION

*The mission of the [Project Title] project is to implement a new process by [date] that will satisfy all requirements*

*[Mission - a statement of the overall action that the team will take to accomplish its mandated purpose and vision. The mission statement will focus on the positive improvements implemented as a result of the successful completion of the project. Expand on the purpose with a broadly measurable result; **should** include the project completion date.]*

### 1.4 BACKGROUND/HISTORY

The xyz building was used for the production of nuclear weapons components for thirty-seven years. The building has experienced many unusual events which ***may*** have left contamination in unexpected locations.

*[Background/history - include data pertinent to the new project that summarizes events or predecessor projects that lead to the decision to proceed with this project. Provide information necessary to understand impact to other programs/projects, technical risks that **may** continue*

*based on building descriptions and building history. Describe interfaces with other projects that affect decision on scope, schedule, budget, methods of performance, or any other project parameter. Provide a short summary of events or supporting projects that have lead to this projects; **should** include the previous project completion dates, deliverables, and funding.]*

## 1.5 PROJECT JUSTIFICATION

Summarize the need for the project including major drivers, compliance agreements and schedules, projected cost savings, and relationship and supporting role to the RFETS Closure Plan.

## 1.6 PROJECT FUNDING

*Identify All Necessary Project Funds, Including Fund Source And Type (Expense and/or Capital: GPP, BCE Or Line Item), And Reference Numbers (PBS, WAD, WBS, And Primary Charge Numbers). Include Prior Year Project Funding As Appropriate For Reference Purposes. Outline The Source And Restrictions On The Funds Proposed For Funding The Project. Include Appropriate Illustration To Show Project Scope; If Not A Building Or Cluster, Show Types Of Material Processed, Etc.]*

# 2. PROJECT SCOPE

Provide a detailed summary defining major elements of the project, with sufficient detail to bound project parameters. Update the project scope as necessary to accurately reflect the project Design Criteria.

## 2.1 GOALS

Project specific goals include:
1. ...
2. ...

*Identify the primary goals for the project in terms of scope, schedule, cost, safety, and project technical performance. Goals must be quantitative and time specific.]*

## 2.2 DELIVERABLES

List the deliverable outputs from Project Team.
The primary project deliverables are:
1.
2.

## 2.3 BOUNDARIES

Define the limits of the team's work and formal authority: decisions it ***may/may not*** take, resources it ***may/may not*** expend, etc.

## 2.4 PROJECT DOCUMENTS

This project's work authorization documents (WADs) define the basis for DOE contractual authorization to perform work. They are based on the PBSS submitted to DOE by Kaiser-Hill. Project baseline summaries (PBSS) provide a summary of WADs. The PBSS comprising this project include x, y and z. Other project documents include technical reports and assessments, other project plans (e.g., Health and Safety plans, Quality Assurance plans, etc.), Specifications,

and project control documents. Figure 2 illustrates the document hierarchy for the project. The primary documents describing the technical scope include the project specifications...

*[Identify all of the major project-specific documents that the project team must understand. Do not include generic site-wide policies or procedures.]*

Figure 2: The document hierarchy shows relationship of project documents.

*[Provide Example]*

## 3. TECHNICAL APPROACH

*[Describe the broad technical approach to accomplish the project. Briefly describe and reference tradeoff or value engineering studies supporting the recommended approach. If applicable, include discussion of the potential use of new technologies. Note: Alternatives and recommendations approaches are provided in the Decision Document]*

### 3.1 TECHNICAL STRATEGY

The overall project strategy is to:

- ...
- ...

The technical strategy for the [Project Title] project is to:

- Remove highest hazards first.
- Focus on results that reduce 'mortgage costs' as soon as possible.
- Apply appropriate technology to keep exposure and contamination ALARA.
- Decontaminate progressively through a building.

*[Strategy - A broad description of **how** the team will approach its work - e.g., either to complete a task internally or outsource it. Refer to the documents that support the project technical and management approach, referring to figure 2, the document hierarchy.]*

### 3.2 APPLICABLE REGULATORY REQUIREMENTS DOCUMENTATION

The Kaiser-Hill contract with DOE specifies the list of DOE directives applicable to work at Rocky Flats. The Kaiser-Hill Level 1 control documents conform to these requirements. All work on the RFCP is performed to appropriate regulations and standards that help protect the environment and health and safety of the workers and surrounding populations. Section 8 provides more detail on this topic.

*[Provide a reference to the project-specific regulatory requirements.]*

### 3.3 GUIDING PRINCIPLES

Guiding principles for the [Project Title] project include:

- Safety of workers and the public is our primary concern.
- Protect the environment.
- Use the taxpayer's money wisely.

*[Identify the principles that the project team **Should** consider when making decisions. This **may** include both site-wide and project-specific principles.]*

### 3.4 PROJECT CLOSURE

*[Identify the general approach that the team **Should** follow to close out the project. Project closure ensures that the project team correctly dispositions all aspects of the project at closure. Similar to the readiness process, project closure addresses final disposition of facility and equipment, project records, and project personnel, and the connections between all three entities. Closure activities **Should** be ongoing activities throughout the life of the project, as much of the data necessary for project closure can not be developed after the fact. Effective project closure is a unique opportunity for the project team to disseminate the lessons learned during the project. Project closure **Should** include development and issue of a 'lessons learned' report on the project. You must assure that the team develops the input for this report before they are reassigned to other projects.]*

## 4. PERFORMANCE CRITERIA

Project team success depends on several Critical Success Factors, and project performance to the work plan that completes the project mission. Performance criteria for the project include:

- Technical performance requirements from specifications and applicable requirements,
- Safety,
- Quality,
- Schedule,
- Cost, and
- Administrative (e.g., subcontracting).

This project commits to achieve annual and long term milestones and performance metrics. These include Site Performance Measurements, DNFSB milestones, RFCA milestones, and Super-stretch performance milestones. Appendix B lists the current year milestones. Kaiser-Hill updates the Performance Measurements annually. Milestone completion reports are submitted as the milestones are achieved.

*[List the major technical performance characteristics that will determine project success, including laws, orders, regulations, user deadlines, performance measurement deliverables, etc. This section identifies, for example :*

- *Acceptance and close-out criteria necessary to clearly define milestone completion and formal completion of the project,*
- *Waste disposal criteria, and*
- *Building cleanup criteria.]*

### 4.1 CRITICAL SUCCESS FACTORS

Critical success factors for the [Project Title] project are:

- Safe operations,
- Complete and accurate project documentation,
- Coordination of all necessary site resources

*[Critical success factors - the critical elements (usually 4 to 8) that must be achieved if the team is to experience success.]*

### 4.2 MEASURES

Project measures include:

- Technical Quality: specification performance.

- Project Control: Quantities (kg, liters, $ft^2$), Critical path status (days), Schedule Variance ($), and cost variance ($).
- Safety: Radiological, industrial safety, and industrial hygiene indicators.

*[Measurements - specific indexes that will be used to assess whether the results meet the agreed upon criteria - in terms of quantity, quality, time, or costs. These measures determine management action to control the project.]*

## 4.3 SITE INTEGRATED STABILIZATION MANAGEMENT PLAN (SISMP)

SISMP milestones supported by this plan include:

- ...
- ...
-

*[Only include this section if your project has SISMP milestones.]*

### 4.3.1 RFCA MILESTONES

The Final Rocky Flats Cleanup Agreement specifies a Vision, objectives, and enforceable milestones for the closure of Rocky Flats under CERCLA and RCRA. This agreement permits the CDPHE and EPA to select RFCP milestones as enforceable milestones for site closure. RFCA Milestones supported by this project include:

- ...
- ...

*[Only include this section if your project has RFCA milestones.]*

### 4.3.2 PERFORMANCE MEASURES

Kaiser-Hill and DOE have a Performance Based contract. The total fee that DOE pays Kaiser-Hill (and its subcontractors) is subject to the government weighted fee guidelines. This means that our project team earns more by higher performance. DOE requires unambiguous measures of performance in order to pay on this basis. Performance measure milestones supported by this project include:

- ...
- ...

*[Only include this section if your project has specific DOE performance measures.note: project plan **Should** show ties that **may** impact important milestones outside the scope of this project.]*

# 5. PROJECT RISK MANAGEMENT

## 5.1 ASSUMPTIONS

Key assumptions pertinent to planning and implementing the [Project Title] project are:

- ...
- ...

*[Summarize the key assumptions that affect the scope, schedule, and cost estimates for the project. Order the assumptions from most significant to least. Specific assumptions that affect task budget and schedule **shall** be included in the basis of estimate.]*

## 5.2 RISKS

Project risk factors that might impact project completion to full scope, schedule, or cost were assessed and, where justified, preventive measures taken or mitigation measures planned. The most basic approach to project risk management uses the potential problem analysis format, presented by Table 1.

The P column characterizes the risk probability as high, medium, or low. Evaluate P over the life of the project. Risk events with over a 50% chance of occurrence over the life of the project are rated as High probability. Judge the probability of risk events with less than a 5% chance of happening over the life of the project as Low. The S column categorizes the seriousness of the consequence of the risk event as High, Medium, or Low. Judge seriousness in terms of the Site critical path and total PMB cost; events that ***may*** have a significant effect (e.g., 20% or more) impact on overall RFCP schedule or cost **Should** show High seriousness. Identify the project risks that your team intends to monitor, prevent, and or prepare to mitigate.

**Table 1: Potential Problem Analysis identifies the major project risks.** Note that these are risks to technical performance, project schedule, or project scope.

| Potential Problem | P | S | Prevention | Mitigation |
|---|---|---|---|---|
| WIPP opening delayed by up to one year | H | L | Activities on this project can not prevent the event. | Contingency plan for temporary storage of processed materials. |
| WIPP never opens | L | H | Activities on this project can not prevent the event. | Extend temporary storage until final resolution achieved. |
| Significant scope requirement overlooked | L | M | Independent validation of scope, cost, and schedule Early initiation of Readiness Review | Identify alternative ways to accommodate scope with little or no cost or schedule impact. |
| High consequence natural event (e.g. earthquake) | L | H | Safety analysis and implement any required Safety Systems, Structures, and Components | Emergency plan |

*[Note: the table 3 entries are examples only. Replace with entries appropriate for your project. Assure that the prevention and mitigation measures are covered in your plan! Generally, project risk events with a 'h-h' profile demand both prevention and mitigation. The project team **Should** generally delete 'l-l' profiles from the table. The project plan **Should** apply prevention and mitigation measures to m-m, l-h, and h-l cases based on cost effectiveness.]*

## 6. METHOD OF ACCOMPLISHMENT

Project planning, contract monitoring, and closure reporting will be performed by the RMRS project team. Design will be performed by a joint team led by RMRS project engineering. The design will produce construction drawings and specifications. Project construction activities will be subcontracted to a construction contractor using a fixed price construction contract.

*[Describe how you intend to perform the work. Identify the separation of work between that work to be conducted utilizing the site's integrated work control program (iwcp) and the work to be conducted through other detail design processes (subcontract, maintenance support, etc.). This section **SHALL** identify the type of agencies or subcontractors that will perform work for all elements of the project. Explain rationale for methods selected. For contracts, indicate the*

*contract format, e.g., fixed-price competitive, fixed-rate, cpff, etc. Indicate preliminary or final davis-bacon determinations.]*

## 7. ENVIRONMENTAL, HEALTH, AND SAFETY

*[Identify the specific environmental, health, and safety requirements and considerations for the project. Describe how the team identifies, analyzes, and controls potential hazards in accordance with integrated safety management principles to reduce the risk to human health and the environment. You **may** include or reference a project specific health and safety plan.]*

### 7.1 ENVIRONMENTAL COMPLIANCE

RFETS is fully committed to regulatory compliance and environmental cleanup and stewardship at RFETS. Activities on this project comply with the requirements of the following (non-inclusive) list:

- Rocky Flats Compliance Agreement (RFCA)
- Price Anderson
- Site Treatment Plan (STP)
- Federal Facility Compliance Agreement (FFCA)
- Residue Consent Agreement
- Toxic Substances Control Act (TSCA)
- Clean Air Act (CAA)
- Clean Water Act (CWA)
- Resource Conservation and Recovery Act (RCRA)
- National Pollutant Discharge Elimination System (NPDES)
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- McKinney Act
- Price-Anderson Amendments Act (PAAA)
- National Historic Preservation Act (NHPA)
- Occupational Safety and Health Act (OSHA)
- National Environmental Policy Act (NEPA)

*[Describe how the project team will ensure environmental compliance with project-specific requirements. The project team evaluates each project activity for its NEPA compliance. Compliance with other generic environmental law requirements has been assured by subject matter expert review of the environmental checklist and he PEP, and incorporated into the detail project work plan.]*

## 8. WASTE MANAGEMENT AND MINIMIZATION

*[Identify the waste management requirements and considerations, including known waste categories and types. Include or reference a project specific waste management plan as necessary.]*

## 9. STAKEHOLDERS

Stakeholder involvement in this project is mandated by several laws, and is the policy of the DOE. Stakeholders include regulators, the public, project workers (including subcontractors), and anyone affected by the project. The Rocky Flats Plant Public Involvement Plan[1] specifies the approach to overall community involvement. Some activities, such as National Environmental Policy Act (NEPA) compliance have other specific requirements.

[1] Rocky Flats Plant Community Relations Plan, U.S. Department Of Energy, December 1, 1991

*[This section **Should** describe how the project ties into the overall stakeholder and public involvement plans for the site, and any unique factors for this project. This section **Should not** repeat site-wide stakeholder communication activities; but rather show how this project ensures that it is covered by these activities.]*

## 9.1 COLLABORATION AND ENDORSEMENT

Project plan endorsement results in projects where staff, management, clients and essential third parties all focus toward the same project objectives, support the team effort to accomplish the objectives, and commit to offer whatever assistance they must to successfully complete the project. Endorsement is not the same as approval. Endorsement means proactive commitment, not passive lack of objection.

### 9.1.1 PROJECT TEAM

Project team endorsement begins with joint development of the project charter and workplan. It occurs when those expected to do the work described in the plan carefully review what is expected of them, and commit to completing the project as planned.

### 9.1.2 MANAGEMENT

Management endorsement occurs when those controlling the corporate resources formally have the opportunity to improve the plan, and officially commit to supplying the resources necessary

**Figure 3: The organization structure and functions of the** [PROJECT TITLE] **project team supports achieving the project vision.**

for success.

### 9.1.3 INTERNAL SUPPORT ORGANIZATIONS

Internal support organizations are an extension of the project team, and achieve endorsement through having the opportunity to apply their expertise to the working plan, and formally commit to what is expected of them.

### 9.1.4 DOE

Client endorsement gives the client the opportunity to review, understand, and agree to the details of the scope and methods to accomplish the project. This most is the most important project endorsement, assuring that the workplan is properly focused.

### 9.1.5 EXTERNAL PARTIES (PUBLIC AND REGULATORS)

Third party endorsement for Rocky Flats projects includes the public, including special interest groups, EPA, CDPHE, and DNFSB.

### 9.1.6 ONGOING COLLABORATION

Project reporting is a primary means for communication to the stakeholders on how the project is performing to plan. Review meetings allow the stakeholders the opportunity to interact with

the project team for two-way communication. The project plan includes specific check points to ensure continuing endorsement.

*[Describe how the project team ensures ongoing collaboration to ensure endorsers participate throughout project performance.]*

## 10 ORGANIZATION AND RESPONSIBILITIES

*[This section describes the [project title] project organization structure, functions, and interfaces. List the key personnel assigned to the project, including: applicable vice president(s), project manager, project engineer, lead designers, subcontract administrator, construction coordinator, and other key support personnel; include a description of duties and an organization chart; identify any significant work that will be subcontracted and the relationship to the project team. If necessary, include or reference an organizational breakdown structure (OBS), and a responsibility assignment matrix (RAM). If the responsibility for project performance is to shift from one vice president to another during the course of the project, include or reference a transition plan defining the deliverables and correspondence required to clearly mark the completion of commitments to the releasing vice president and defining changes to project team membership, procedures, and deliverables.]*

### 10.1 TEAM ORGANIZATION STRUCTURE

***Error! Reference source not found.*** *illustrates the structure of the [Project Title] team.*

*[Describe the structural configuration of the team membership - on a simple project, such as a brief study, one or two team members **may** work independently most of the time. On larger, more complex projects, additional structure and organization **may** be necessary to manage multiple levels of authority, e.g., A sponsor team that deals with policy issues; leadership team that sets strategy and makes decisions; and task teams that deal with the actual definition and implementation of specific aspects of the work. Describe how the team is connected to the larger organization of which it is a part.]*

### 10.2 TEAM PROCESSES

The process used by the project team follows the CH2MHILL Project Delivery System (PDS) methodology. These processes include:

- Develop the work plan.
- Obtain project endorsement.
- Authorize work performance.
- Implement work.
- Measure and report work performance.
- Control work to the plan.
- Change the plan if necessary.
- Document work performance and results.
- Communicate.
- Close the project.

*[This section identifies project specific processes that the project team members must understand and follow. Refer to the procedures for the processes.]*

### 10.3 RESPONSIBILITIES

The Contract Work Breakdown Structure (CWBS) assigns responsibility to a person for each element on the WBS. The responsibility depends on the level of the WBS. Managers at the lowest level of the WBS have the responsibility to plan and perform the work in the work package, and to report progress. They can authorize changes in the details of the work package that do not affect the PMB or Performance Measures. Changes that meet the Baseline Change Process thresholds must follow the BCP process, as described in P&I Work Instruction INST-002.

The WBS dictionary, Appendix X, contains the responsibility assignments for the project team members. The project team and all individuals with assigned responsibility have reviewed and agreed to the assignments.

## 10.4 TEAM INTERFACES

Interfaces with other projects include:

- ...
- ...
- ...

Interfaces with other site organizations include:

- ...
- ...
- ...

Special considerations for interfaces between buildings include:

- ...
- ...
- ...

Interfaces outside of the Rocky Flats organizations include:

- ...
- ...
- ...

Interfaces with DOE include:

- ...
- ...
- ...

The project team controls interfaces by...

*[Describe how the project team controls interfaces.]*

## 10.4 SUBCONTRACTOR'S INTERFACES

*[This section defines the interface between the Kaiser-Hill [project title] project management team and subcontractors.]*

## 11. PROJECT WORK BREAKDOWN STRUCTURE

All work at Rocky Flats is organized in accordance with the integrated site Work Breakdown Structure (WBS). The WBS covers the entire project through project closure.

Figure 4 illustrates the WBS for the [Project Title] project. The WBS design derives from the logical structure of the work. WBS responsibility is assigned using the CWBS.
The WBS Dictionary extends the work scope definition to several levels, and provides more detailed scope definition.

Appendix B provides the portion of the WBS applicable to the [Project Title] project.

**Figure 4: The [Project Title] Work Breakdown Structure (WBS) provides a logical basis to organize work.**

## 12. BUDGET

**Table 2: Life Cycle Estimate for the [Project Title] project.**

| Fiscal Year | Labor $ | Non-labor $ | Total FY $ |
|---|---|---|---|
| Prior Fiscal Years | | | |
| FY 1998 | | | |
| FY 1999 | | | |
| .... | | | |
| **Total Baseline** | | | |
| Contingency | | | |
| Escalation | | | |
| **Project EAC** | | | |

*[The project team creates the overall life-cycle budgeted cost of work scheduled (BCWS) for the [project title] project. The BCWS derives from the best data-base. The data base represents the official cost estimate for the project. Table 2 illustrates the life cycle cost for the [project title] project. If necessary, identify BCWS by type of funds, e.g., GPP.]*

### 12.1 BASIS AND VALIDATION

Project cost estimates are included in the BEST database. All cost estimates within BEST have been validated by individual teams that do not contain the same people that do the work, led by the Kaiser-Hill P&I organizations. In addition, the project cost estimate was bench-marked against...

*[Identify the source of information for the project cost and schedule estimates, and the degree of reliability in those estimates.]*

### 12.2 FINANCIAL WORK AUTHORIZATION

The Kaiser-Hill project control system uses three levels of authorization:
1) Authorization from DOE, RFFO to Kaiser-Hill,
2) Authorization from Kaiser-Hill to the prime subcontractors, and
3) Authorization from Kaiser-Hill and the prime subcontractors to lower-tier subcontractors.

**Authorization from DOE, RFFO to Kaiser-Hill** -- Work authorization from DOE, RFFO to Kaiser-Hill is performed at least once annually, just prior to the beginning of the new fiscal year (execution year). This authorization takes two forms: issue and approval of a PBS, and modification to the Kaiser-Hill contract to establish funding authority and allow Kaiser-Hill to incur costs The PBS is issued at the project level, while funding authorization is made according to Budget & Reporting (B&R) code structure. (However, in FY98 essentially all funding ***may*** be one B&R code.) During the course of the execution year funding authorization is updated based either on release of incremental funding or as the result of a Site Change Control Board (SCCB) action.

**Authorization from Kaiser-Hill to the Prime Subcontractors** -- Subsequent to receiving authorization from DOE, RFFO, Kaiser-Hill issues work authorization to the prime subcontractors. This authorization takes the form of a contract modification referred to as a "Procurement Authorization Document," or PAD. The subcontractors ability to incur costs is limited to the amount of the PAD. Thus, the PAD is modified periodically throughout the execution year. The PAD is issued at the lowest work breakdown structure level by which the

**Figure 5: The [Project Title] project Critical Path schedule supports the overall Rocky Flats Closure Project plan.** *The plan includes all internal and external interfaces.*

prime subcontractor(s) will collect and accrue cost. However, due to late authorization from Congress, continuing resolution ***may*** be issued to continue work until formal budget authorization.

**Authorization from Kaiser-Hill and the Prime Subcontractors to Lower-tier Subcontractors** -- These authorizations to so-called 3rd tier subcontractors take the form of purchase orders. Each purchase order establishes work scope, terms and conditions, and authorized cost.

*[Assure that the project team understands the process for financial authorization of work.]*

## 13 PROJECT SCHEDULE

Project schedules are created, maintained and statused with Primavera Project Planner (P3). This integrated project plan and management tool aids the project team in defining and controlling to the critical path schedule. The lowest level of the WBS has clearly defined inputs and outputs. The activities that comprise the lowest WBS element process the inputs to create the deliverable result.

*(Identify the various levels and purposes of project schedules. The project execution plan schedule **should** be the pmb schedule for the project; not a working schedule.)*

## 13.1 PERFORMANCE MEASUREMENT BASELINE SCHEDULE

Figure 5 illustrates the **[Project Title]** project summary schedule. It aligns with the Closure Project Baseline (CPB) schedule. The CPB includes the life-cycle schedule of all the work scope included in the Focus on 2006 Plan. Schedule detail reflects the "Rolling Wave" method of scheduling, which produces a decreasing level of detail as time is extended from the current Fiscal Year (FY).

Kaiser-Hill updates the CPB periodically as a major update revision. It is published on CD-ROM, and therefore not subject to inadvertent modification. The CPB includes the BEST cost estimate detail. The cost estimate detail also contains the basis for the cost estimates. The current year CPB at the start of the fiscal year, designated the Performance Measurement Baseline (PMB) is the initial baseline plan for performance measurement. It is modified through the year by approved BCPs, and designated the Current Working Baseline (CWB) schedule.

*[Identify the project baseline schedule.]*

## 13.2 WORKING PLANS

The Project team develops detailed working plans to guide day-to-day project work. The working plans will achieve stretch performance goals. The working plans **Should** also improve management of uncertainty. They **Should** reduce activity duration to the 50% probability times (normally, approximately one half of the high probability activity times). They **Should** insert a time 'buffer,' representing the collective schedule margin, prior to performance milestones. P&I modifies the CWB schedule to conform to these challenge working schedules.

*[Assure the team understands that day-to-work uses the working schedule, not the baseline schedule.this **Should** be a high level summary schedule for the life cycle of the project, showing the critical path for the project. Note that the project critical path need not be on the RFCP critical path.]*

## 12. PROJECT CONTROLS, REPORTING, AND DOCUMENTATION

The following topics are areas of special interest for the **[Project Title]** project.

*[List essential documentation such as a security plan, environmental documentation, safety screens, safety plan, acquisition strategy plan, configuration management plan, quality assurance plan, or any other planning documents necessary to define and execute the work. Identify special reporting requirements, periodic meetings and reviews, and other control processes that are planned during project execution. A reporting and meeting matrix **may** be included. Refer back to Figure 2.change the contents of this section to fit your project. The material below is only for your information to draw from...delete as appropriate, and add material for your project as needed.]*

## 14.1 QUALITY MANAGEMENT

The Site Quality Assurance Manual defines the Quality Management System for the RFCP. The system includes assignment of responsibility for quality, the governing quality documents, and the different roles--management, performance, and assessment--to obtain and ensure quality performance and product. The Quality Assurance Manual is consistent with DOE G-830.120-Rev. 0, Implementation Guide for use with 10CFR 830.120 Quality Assurance. In addition to the Site Quality Assurance Manual, each Principal Subcontractor has a company specific Quality Assurance Program Plan (QAPP.)

Specific quality requirements for this project are....

*[Identify the project-specific quality requirements and how the project team will implement them. Include discussion here or reference to a project specific GAPP or GAPIP, as appropriate. Do not list all the worlds codes and standards, nor all of the ones covered through site programs. Only list those of special importance to your project, which you need to draw attention to for your project team.]*

### CODES AND STANDARDS

Applicable codes and standards for this project include:

Projects ***may*** invoke portions of one more QAPPs through their PMPs, as required by the scope of the work. This is usually best accomplished using a matrix in the Project Management Plan, or with a project specific QAPP. Either method must include the following; either by description or reference:

1. Invoke the Quality Assurance infrastructure documents and other quality requirements documents as applicable to the Program/Project.
2. Invoke the requirements of applicable codes, standards, and other regulatory requirements.
3. Invoke additional quality assurance requirements as required by contractual commitments and/or Company management to assure efficient, timely, and cost-effective attainment of Program/Project objectives.
4. Identify the specific groups directed to perform tasks on the Program/Project, defines their respective quality assurance responsibilities, and delegates the authority to accomplish these tasks.
5. Define the method and process by which participating organizations interface for quality affecting functions.
6. Identify the structures, systems, components, and related activities that are within the scope of the quality assurance program.
7. Establish the effective date and document the changes in the QAPP.
8. Identify the procedures that implement compliance with the applicable sections of the QAPP, and any special quality assurance requirements.
9. Assure that the QAPP is distributed to and maintained by organizations having assigned Program/Project responsibilities.

## 14.2 WORK INSTRUCTIONS

Kaiser-Hill uses a comprehensive set of written policies and procedures to guide work performance. The Quality Assurance Program Infrastructure Document List relates these policies and procedures to specific quality requirements. It also designates the organization responsible to generate and maintain the document.

A set of P&I Standards and Work Instructions describe the project planning and control system. The Work Instructions provide detail on how to use the systems. Tables 3 and 4 of the RFCP Project Management Plan list the P&I Standards and Work Instructions. They are also available on the P&I Intranet Home Page, and through document control.

*[Refer the project team to applicable work instructions; both site-wide and project specific. Use this section to clarify applicability or grade the application of any site-wide instructions.]*

### 14.2.1 PROJECT MEETINGS

The **[Project Title]** project uses weekly and monthly meetings to enhance project communication.
The standard agenda for weekly meetings is:

- ...
- ...
- ...

The standard agenda for monthly meetings is:

- ...
- ...
- ...

In addition, we hold ad-hoc meetings as necessary to communicate or problem solve. All ad-hoc meetings must have a prior agenda and issue meeting minutes, including actions and commitments as applicable. Meeting minutes are logged and maintained in the project file.

### 14.2.2 Records Management Procedures

DCI provides the Site's Document Control and Records Management programs and services, with oversight by Kaiser-Hill. Kaiser-Hill provides Engineering Document Control. Principal subcontractors are responsible for adhering to the Site Document Control and records Management Programs through their company specific Quality Assurance Program Plans (QAPPs). Individual projects can identify project specific requirements through their project management plans.

The Correspondence Manual and procedure 1-11000-ADM-003, Correspondence Control Program, describe how to control documents.

Procedure 1-77000-RM-001, Records Management Guidance for Records Sources, describes how the Kaiser-Hill Team controls records. This procedure establishes the requirements and responsibilities of Site record sources for the identification, generation, correction, authentication, protection, and turnover of records for all media.

*[Describe any project-specific records management procedures.]*

### 14.2.3 FINANCIAL PROCEDURES

PMB budgets are automatically authorized through the CWBS. The project team monitors cost to plan to ensure that project budget is managed.

*[Describe any project-specific cost control procedures]*

## 14.3 CONTROL

The project team **SHALL** status the project schedule at least once a month. Projects on the Site critical path, or projects linked to critical milestones ***may*** require more frequent status. The project team performs a complete analysis of the project performance and plan at least once a month.

### 14.3.1 STATUS MEASUREMENT

Project status includes development and collection of status data, and ensuring that the schedule reflects the current operating logic, such as pertinent performance measures and milestones. P&I Work Instructions INST-122 and 123 describe status activities.

Activity performers input two pieces of information to define schedule status. They input this information on the working schedule. P&I rolls the status data up to the CWB-Statused schedule. Percent complete quantifies the amount of the work that is complete, as a fraction of the total work. Performers **Should** derive percent complete from objective measures of activity output. The analysis uses percent complete to calculate the Budgeted Cost of Work Performed (BCWP). In addition, performers must input the remaining duration estimated for each task, which updates the future schedule.

Remaining activity duration ***may*** change the CWB-S schedule activity duration. The schedule process adds the remaining duration to time now. The schedule then recalculates successor activities. This ***may*** extend the project critical path, or change the critical path if activities on previous non-critical paths are delayed.

The financial system collects actual cost in accordance with the Work Breakdown Structure. In addition, project managers must ensure that costs incurred but not yet paid, such as

subcontracts, are accrued. The enables effective collection and reporting of the Actual Cost of Work Performed (ACWP).

*[Describe how the project team will collect and report project status information.]*

### *14.3.2 ANALYSIS*

Monthly analysis of project performance determines the management actions necessary to meet the project scope, schedule and cost requirements, and to look for ways to accelerate the project. Triggers for project analysis include:

- Status (comparison of SWB-S to PMB) shows critical path behind schedule any amount.
- Status (comparison of CWB-S to PMB) changes the critical path.
- Statused schedule non-critical paths show very little, zero, or negative float. (Comparison of CWB-S to PMB. We do not use PMB float data alone, as it ***may*** mislead performers )
- Statused schedule moves milestones (including Performance Measures) beyond target dates.
- Objective performance measures below plan (e.g, liters of liquid processed vs. time.)
- Negative project cost variance. (Note that earned value baseline does not include contingency or escalation.)
- Project EAC exceeds estimated EAC (including contingency and escalation.)
- New scope information.
- New project interface information.
- New resource availability information.
- Project risk factor trigger.

This analysis leads to planned actions to eliminate variances. If appropriate (due to potential magnitude of impact or lack of clarity on the actual cause), the project team performs a root cause analysis to support response action decisions.

### 14.3.3 REPORTS

Kaiser-Hill uses a consistent format to report monthly progress against the baseline plan. Project reports include schedule comparison, milestone, and earned value information necessary to control the projects. Standard reporting extrapolates project Estimates At Completion (EAC) based on the earned value to date, in accordance with Work Instruction INST-127. Variance reports describe the cause of technical, cost, or schedule variances above thresholds determined by the appropriate Kaiser-Hill PBS/WAD Manager. When necessary, the PBS/WAD Manager plans and executes actions to resolve variances. Standards S-05, 08, 09 and 13 and Work Instructions INST-006, 122, and 123 describe the status reporting process and formats.

Due to the fiscal year funding provision for the RFCP, the performance plan is 'zeroed out' at the beginning of each fiscal year. P&I statuses performance on a cumulative basis throughout the fiscal year.

Work Instruction INST-006 describes the Progress Tracking System used to provide reports in the format desired by DOE.

Safety performance information is published monthly. It includes trends of the key safety performance measures.

Table 3 presents the list of Project documents and the approval, transmittal, and customer distribution requirements for the major project documents.

**Table 3: Project Document Matrix.**

| Document | Frequency | Creator | Approval Authority | Distribution |
|---|---|---|---|---|
| Project Plan | One time | Project Team (P&I support) | Project Manager Responsible 10-speed Director, P&I | Project Team Kaiser-Hill managers DOE-RFFO |
| WBS Dictionary | As needed | Project Team (P&I support) | P&I Manager SCCB or ICCB | Intranet |
| Project Schedule (Primavera) | Baseline-one time | Project Team (P&I support) | Project Manager Responsible 10-speed | Intranet |
| Project Cost Estimate [BEST] | Life cycle-one time, Annual work plan | Project Team (P&I support) | Project Manager Responsible 10-speed | Intranet CD-ROM |
| PBS | Annual | Project Team | Project Managers Responsible 10-speed | DOE Project, PBS, and WAD managers |
| BCPs | As needed | Project Team | P&I SCCB or ICCB | SCCB |
| Monthly Reports | Monthly | Project Team P&I (support) | Project Manager | Project Team DOE-RFFO Contractor managers |
| Project Deliverable Reports | As scheduled | As assigned | Project Manager | As appropriate |
| Performance Measure Completion Reports | As required | PBS/WAD Manager | Responsible 10-speed DOE-RFFO | K-H contracts K-H P&I DOE |

## 14.4 CHANGE MANAGEMENT

Kaiser-Hill P&I Standard S-01 and Work Instruction INST-002 define the RFCP change control process. The process applies to changes to the baseline plan. All baseline changes require documented approval by either the ICCB or SCCB prior to implementation. All baseline change documents submitted to DOE/RFFO are processed and approved through the K-H Contractor Change Control Coordinator.

As a control mechanism to define the Types of administrative processing and management approvals required for BCPs, Control Types are categorized as Type I, II, and Administrative.

**Type I** or External BCP: These changes require the SCCB Chairperson approval prior to implementation.

- A DOE directed change.
- A change involving an cost reduction proposal (CRP).
- An individual cost change proposal that exceeds $500K.
- A cost change proposal where the cumulative change to the baseline established at the beginning of the current fiscal year, in a WAD, exceeds $1,000K. (Exceptions: Individual changes with a baseline impact under $50K that would otherwise be a Type II, or where RFFO has set a higher threshold for a specific WAD).
- A cost change proposal that breaches an ECOR (usually a 4-digit B&R) level.
- A scope change proposal that negatively impacts completion of:
  - an RFFO WAD milestone
  - a Performance Measure

- Federal or State regulatory requirements or commitments
- a Defense Nuclear Facilities Safety Board commitment
- a Construction Project

- Additional work scope and the associated cost change request is to be placed on the integrated priority unfunded list.

**Type II** or Internal BCP: These are changes at the WAD level such as internal milestones or WAD and work plan/WBS element changes that do not breach Type I thresholds of the overall WAD scope, schedule (milestone) or cost baseline.

**Administrative**: These are internal changes within/between WBS elements which do not alter the approved Baseline of the WAD scope, cost, or schedule, and are below the WBS control level of the WAD. Example: adding a level six WBS element to a level five-controlled WAD and changes such as resource or cost center re-allocations within WBS elements, that do not alter WAD level scope, cost, or schedule. An administrative change form is used as a control for upload.

*[Describe the site-wide and project-specific change management processes]*

## 15 REFERENCE INFORMATION

### 15.1 ACRONYMS

*[Add or delete as needed]*

| | |
|---|---|
| ACE | Activity Control Envelope |
| ACWP | Actual Cost of Work Performed (Actuals) |
| BCP | Baseline Change Proposal |
| BCWP | Budgeted Cost of Work Performed (Earned Value) |
| BCWS | Budgeted Cost of Work Scheduled (Budget) |
| BFO | Basis for Operation |
| BIO | Basis for Interim Operation |
| CAB | Citizens Advisory Board |
| CDPHE | Colorado Department of Public Health and Environment |
| CPB | Closure Project Baseline |
| CPM | Critical Path Method (schedule) |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| COOP | Conduct of Operations |
| CV | Cost Variance (BCWP-ACWP) |
| CWBS | Common Work Breakdown Structure |
| DNFSB | Defense Nuclear Facilities Safety Board |
| DOE | Department of Energy |
| EAC | Estimate at Completion (Funds required to cover past and future , normally Fiscal Year, scope as represented in the BAC) |
| EIS | Environmental Impact Statement |
| EPA | Environmental Protection Agency |
| EV | Earned Value (BCWP) |

| | |
|---|---|
| IHSS | Individual Hazardous Substance Site |
| ICCB | Internal Change Control Board (Kaiser-Hill Chaired) |
| ISMS | Integrated Safety Management System |
| IWCP | Integrated Work Control Process |
| PMB | Life-Cycle Baseline |
| LOE | Level of Effort |
| MAL | Master Activity List |
| MOU | Memorandum of Understanding |
| ORR | Operational Readiness Review |
| P&I | Planning and Integration (Kaiser-Hill Organization) |
| PCS | Project Control System |
| PEP | Project Execution Plan |
| P&I | Planning and Integration |
| PMB | Performance Measurement Baseline (time phased budget which EV is claimed against) |
| PTS | Progress Tracking System |
| RCRA | Resource Conservation and Recovery Act |
| RFCA | Rocky Flats Cleanup Agreement |
| RFCP | Rocky Flats Closure Project |
| RFETS | Rocky Flats Environmental Technology Site |
| RFLII | Rocky Flats Local Impacts Initiative (Public Group) |
| SOW | Statement of Work |
| STP | Site Treatment Plan |
| SV | Schedule Variance (BCWP-BCWS) |
| SCCB | Site Change Control Board (RFFO Chaired) |
| WBS | Work Breakdown Structure |
| WAD | Work Authorization Document (contractual agreement between RFFO & Kaiser-Hill) |
| WPD | Work Planning Document |

## 15.2 REFERENCES

# APPENDIX C-2
# Daily Construction Report

## Construction Status Report

| Weather | AM | PM | |
|---|---|---|---|
| Sunny | | | |
| Cloudy | | | |
| Rain | | | |
| Snow | | | |
| Wind | | | |
| <40°F | | | |
| 40° - 60°F | | | |
| 60° - 80°F | | | |
| >80°F | | | |

| Workforce | | NO. | LT* |
|---|---|---|---|
| Super | | | |
| Foreman | | | |
| Carpenter | | | |
| Carpet Layer | | | |
| Cement Finisher | | | |
| Dry Wall | | | |
| Electrician | | | |
| Glazer | | | |
| Instrument | | | |
| Insulator | | | |
| Iron Worker | | | |
| Laborer | | | |
| Mason | | | |
| Millwright | | | |
| Oper. Engineer | | | |
| Painter | | | |
| Pipefitter | | | |
| Roofer | | | |
| Sheet Metal | | | |
| Teamster | | | |
| Tile Setter | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| Total | | | |
| Equipment | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

*LOST TIME HOURS

Job Title:_____

Contract/Task #:_____ Authorization #:_____

Type of Funding:_____ Work Order (IWCP)#:_____

Type of Subcontract:_____ Subcontractor:_____

Scheduled Start:_____ % Scheduled to be Completed:_____

Schedule Completion:_____ % Actually Completed:_____

Revised Completion:_____ Nonconformances:_____

**Job Description:**

**Buildings/Areas:**

**Progress:**

**Planned Activities:**

**Support Requirements:**

**Problems/Resolutions**

**Cost Information:**

Subcontract Value$:_____

Total billed $:_____ as of:_____

**Changes to Subcontract:**

Total Cost of Changes $:_____

Total Number of Changes:_____

**Submittals Outstanding:**

**Safety Evaluation:** Daily:____ Weekly:____ Monthly:____

**Project Team:**

Project Manager:_____ Field Engineer:_____

Const. Superintendent:_____ Project Engineer:_____

Construction Manager:_____

Updated by:_____ Date:_____

Signature:_____ Date:_____

***Use the revese side of this form for additional comments***

# APPENDIX C-3

## Monthly Personnel Resource Usage Report

**FIXED PRICE CONTRACTOR/MONTHLY PERSONNEL RESOURCE USAGE REPORT**

Month _____ Field Engineer/Supervisor _____
Project _____ Contractor _____
Auth. # _____

| Craft | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Asbestos Workers | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Boilermakers | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Bricklayers | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Carpenters | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Carpet/Linoleum | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Electricians | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Elevator Constructors | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Glaziers | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Iron Workers | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Laborers | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Millwrights | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Operating Engineers | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Painters/Drywallers | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Pipefitters | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Plasterers | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Plumbers | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Roofers | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Sheetmetal Workers | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Sprinkler Fitters | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Teamsters | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| Tile & Terrazzo Workers | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 0 |

# APPENDIX C-4
## Construction Progress Photographs

**PHOTO**

**FILM ROLL NUMBER 49870** (Film roll number is shown on back of photo)
**DESCRIPTION - ROCKY FLATS FIELD OFFICE** (Typed exactly as shown)
**BUILDING T886D MODULAR LABORATORY UTILITIES** (Name of job)
**SUBCONTRACTOR - ROY F. WESTON** (Name of Subcontractor)
**K-H Project Manager – TJ Wirth** (Name of Kaiser-Hill Project Manger)
**NCA20005** ( Job Number)
**DATE 7/14/97** (Date photos taken)
**#1 LOOKING NORTHWEST AT COMPLETED PIER FOUNDATIONS FOR MODULAR** (Negative number shown on back of photo and description of photo)

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# APPENDIX D

## Appendix D Contents

D-1 Reconnaissance Level Characterization & Final Survey Plan (RLCP) Template

D-2 Reconnaissance Level Characterization Report & Final Survey (RLCR) Template

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# APPENDIX D-1
## Reconnaissance Level Characterization & Final Survey Plan Template

1. **INTRODUCTION**
   - Purpose, Scope
   - Data Life Cycle

2. **BUILDING / CLUSTER DESCRIPTION**
   - Include physical description, operating history and general building conditions.
   - Identify any known hazards.
   - Discuss existing data from historical site assessments, scoping characterization, etc.
   - Present data gaps including contaminants of concern.
   - Demonstrate why building/cluster is believed to be a Type 1 Facility.

3. **DATA QUALITY OBJECTIVES**
   - Present DQOs from the Characterization Document; adjust according to data needs
   - The Problem and The Decision
   - Inputs to the Decision
   - The Project Boundaries
   - Decision Rules
   - Limits on Decision Errors
   - Optimizing the Design for Obtaining Data

4. **SURVEYING, SAMPLE COLLECTION AND ANALYSIS**
   - Discuss sampling and field measurement/surveying methods and procedures per contaminant type, including radiological contamination.
   - Classify areas based on contamination potential.
   - Specify number of samples, sample locations, sample/survey grid per MARSSIM, identify analytes, etc. For radiological constituents, MARSSIM **SHALL** be used. During this phase survey units must be identified.
   - Specify equipment and instruments to be used, and required detection limits based upon Derived Concentration Guideline Levels (DCGL's) per MARSSIM.
   - Determine Site background.
   - Include subsections on sample handling procedures, QC samples, sample designation, personnel and equipment decontamination, and waste management.
   - Determine DCGL's.
   - Discuss laboratory analysis (who, how, procedures, QA/QC, etc.).

5. **FACILITY ENTRY REQUIREMENTS**
   - Discuss how characterization/survey activities implement the RFETS ISM Program.
   - Discuss PPE based on building and COCs (hazards identification).
   - Discuss contamination and other controls (Rad and Non-Rad), including RWPs, postings, personnel and area monitoring, decontamination, etc., based on hazards identification.
   - Discuss ongoing data review used to assess adequacy of controls and control changes.

6. **QUALITY ASSURANCE**
   - Applicable QA Programs
   - Personnel Training and Qualification
   - Document Control and Records / Data Management
   - Change Control
   - Procurement
   - Inspection and Acceptance Testing
   - Assessments and Continuous Improvement

7. **PROJECT ORGANIZATION (Roles and Responsibilities)**

8. **REFERENCES**

9. **APPENDICES**
   - Radiological Survey Instructions
   - Applicable Decommissioning Procedures
   - Others as Appropriate

# APPENDIX D-2
## Reconnaissance Level Characterization & Final Status Survey Report Template

1. **EXECUTIVE SUMMARY**

2. **INTRODUCTION**
   - Report Purpose
   - Characterization/Survey Scope
   - Report Content

3. **SUMMARY OF CHARACTERIZATION/SURVEY ACTIVITIES**
   - Data Quality Objectives (including the Problem and Decisions)
   - Sampling and Field Measurement/Surveying Methods, Procedures and Equipment
   - Laboratory Analysis

4. **BUILDING / CLUSTER OPERATING HISTORY**
   - History of Buildings
   - Current Operations
   - RCRA and CERCLA Designated Areas

5. **PHYSICAL DESCRIPTION**
   - Summary Description
   - Specific Descriptions-operations, functions, etc.

6. **IDENTIFIED BUILDING HAZARDS**
   - Physical
   - Radiological (include results of surveys and statistical tests)
   - Chemical
   - Asbestos
   - PCB
   - Pressurized Gas and Liquid Nitrogen
   - Electrical
   - Wastes
   - Hazardous Waste
   - LLW and LLMW
   - TRU and TRU Mixed Waste
   - Sanitary Waste

7. **DECOMMISSIONING WASTE TYPES AND VOLUME ESTIMATES**

8. **DATA CONFIRMATION AND DATA QUALITY ASSESSMENT**

9. **FINAL BUILDING / CLUSTER CATEGORIZATION (TYPE) AND NEXT STEPS IN THE DECOMMISSIONING PROCESS**

   - Discuss building categorization based on characterization/survey results in terms of the DQO "Problem" and "Decisions". Include discussions relevant to engineering studies and assessments.

# APPENDIX E

## Appendix E Contents

E-1 Statement of Work

E-2 Instructions for Construction Subcontractor Pool Application and Application for Pre-Qualification, Subcontractor Evaluation

E-3 Decision Document Guidance

E-4 Decision Document Template

# APPENDIX E-1
## Statement of Work Template

## Revision 1

# STATEMENT OF WORK

## Construction Management

## September 24, 1997

## Table of Contents

| Section | | Page |
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| 1.0 | Introduction (Objective)..... | |
| 2.0 | Scope..... | |
| 3.0 | General Background..... | |
| 4.0 | Technical Requirements..... | |
| 5.0 | Reports, Data, and Other Deliverables..... | |
| 6.0 | Mandatory Plant Rules and Regulations..... | |
| 7.0 | Special Considerations..... | |
| 8.0 | Project Reporting..... | |
| 9.0 | Project Meetings..... | |

# Statement of Work

## Construction Management and D&D Project Management and Support

### 1. Introduction (Objective)

Construction/Project Management (CM/PM) serves as the programmatic umbrella organization to establish a mobilized, construction Subcontractor to perform construction and D&D work at the Rocky Flats Environmental Technology Site (RFETS). Construction and D&D work at RFETS is under the direct control and overview of Kaiser-Hill, LLC (Contractor). All construction and D&D activities performed will require Subcontractor to comply with the overall Plant Administrative Policies and disciplined Conduct of Operations.

The objective of this activity is to provide technical oversight and programmatic support for designated construction and D&D activities for the K-H team on projects at RFETS.

### 2. Scope

The work will consist of new construction as well as associated CM functions for deactivation and decommissioning (D&D) activities assigned, minor design, modification, alterations, and repairs to a wide range of existing facilities including, but not limited to, changes and additions to process systems, electrical, and machinery in existing facilities; stripping out of, and alterations to, existing buildings; modifications of laboratories; and other similar construction. Task orders normally are funded by expense and capital construction funds and related expense funded projects for upgrades.

The Subcontractor ***may*** perform work for specific task orders including, but not limited to:

A. Provide constructability review services.

Determine with Contractor overview by objective and quantitative means, the best suited construction options (i.e., self performed, subcontracted), or combination of operations, required to perform any given task contemplated by the Contractor.

Evaluate and report earned value statistics and provide other project related analyses.

Provide OSHA competent excavation inspections for control of all excavations on the Site.

Provide surveying and drafting support for K-H construction.

- Provide surveying support for engineering and construction work at the site.
- Supply drafting support for K-H.
- Provide maintenance of the Site Utilities drawings and benchmark system.
- Process excavation permit for construction activities.
- Provide construction management as assigned by task order.

- The Subcontractor ***may*** be tasked to provide support to collect data and produce deliverable reports and presentation packages to support construction project management activities.

- Subcontractor **SHALL** either provide a separate set of procedures governing its work or perform all services in accordance with the K-H Quality Assurance Program or provide a QA Plan which meets the KH QA Standards.

- The subcontractor ***may*** be tasked to provide any of the "TASK OPTION" activities in the AE/C/CM ACTIVITIES, EXECUTION PHASE.

- Provide escort services as requested.

## 3. General Background

CM/PM provides an integrated, coordinated, and cost-conscious safe approach to project construction and D&D activities at RFETS. CM/PM provides a consistent approach to construction and D&D oversight. Additionally, CM/PM provides a resource to facilitate the effective interaction between Contractor departments/requirements and Subcontractor organizations. Contractor **SHALL** utilize plant-approved designs and specifications.

## 4. Technical Requirements

The Subcontractor **SHALL** perform designated support activities for the Contractor oversight for all construction and D&D PM activities on plantsite.

- Provide constructability review services during the design phase of the project to assist the design group in establishing the constructability of the proposed design, sequencing of work and procurement activities, and acceptance testing procedures.

- Determine with Contractor overview by objective and quantitative means the best suited construction options (i.e., self performed, subcontracted), or combination of operations, required to perform any given task contemplated by the Contractor.

- Provide plantwide control of all excavations and soil disturbances performed at RFETS and associated offsite projects by ensuring compliance with federal, state, and plant requirements.

- Monitor the effectiveness of safety and environmental compliance by construction personnel and subcontractors performing construction and D&D work at RFETS by tracking safety violations reported from construction personnel, Occupational Safety, and DOE.

- Schedule preconstruction walkdowns with affected Rocky Flats departments and subcontractors.

- Determine at the work site, on a current basis, and record construction documents, drawings, samples, purchases, materials, equipment, maintenance and operating manuals and instructions, current OSHA Federal Regulations and plant safety and health

practices manuals, and other construction-related documents, including revisions that are current.

- Maintain effective quality, environmental, safety, health, and emergency preparedness programs in accordance with applicable requirements.

- Assure designated workers within the Protected Area (PA) are cognizant of and follow the "As Low As Reasonably Achievable" (ALARA) guidelines and procedures. ALARA encompasses both numerical exposure guidelines and conceptual radiation protection practices.

- Schedule Radiation Control Technicians (RCTS) for all construction projects.

- Contractor **SHALL** either submit its own procedures governing its work or **SHALL** perform all its work in which adherence with K-H QAP, QAIP and other applicable procedures, etc.

- The Subcontractor **SHALL** provide technical coordination between Contractor departments and onsite construction subcontractors to address questions and problems.

- Provide budget and work package recommendations and analyses to the Contractor for the annual costs associated with maintaining the construction/project management organization administrative staff and specific costs associated with the onsite captive Subcontractor.

- Provide assistance to field personnel for the proper control, handling, and disposal of waste associated with construction projects through knowledge of Resource Conservation and Recovery Act (RCRA), Waste and Environmental Management Systems (WEMS), Toxic Substance Control Act (TSCA), Federal Facilities Compliance Agreement (FFCA), and Land Disposal Restriction (LDR) information.

- The Subcontractor **SHALL** maintain records for all Subcontractor construction personnel including:

  - Personnel records
  - Time Cards
  - Distribution of paychecks
  - Vacation scheduling
  - Merit changes
  - Personnel relocations
  - Job classifications

- Maintain project files to track items such as Project Acceptance and Transfers (PA&Ts), Project Beneficial Occupancy Notices (PBONs), Construction Field Changes (CFCs), and Engineering Orders (EOs), and coordinate all security clearances.

- Report daily on all tasks to ensure that affected departments are informed of status, progress, and delays.

- Provide regularly updated project progress and status reports as defined by DOE Orders and Construction Project Management procedures.

5. **Reports, Data, and Other Deliverables**

All work products will be provided as specified by the CTR in written format, and in a quantity not to exceed five copies. Additionally, quarterly summaries of work products will be delivered in written format to the CTR. Unless otherwise specified, all quantities of work products will be produced at an evenly spaced rate, with completion of all work products by the end of the 4th quarter of FY97.

The Subcontractor **SHALL**:

- Provide written constructability review results as required by project schedules.
- Provide written recommendations to the Contractor or the best suited construction and D&D options as required by the project schedule.
- Provide completed excavation permits and field observation reports.
- Provide written assessments of the effectiveness of safety by construction personnel and subcontractors performing construction work at RFETS.
- Schedule and document preconstruction and D&D walkdowns with affected Rocky Flats departments.
- Transmit documentation requests for RCTs on all construction projects.
- Develop financial, bases of estimates, budget and work packages and analyses to support the Contractor's annual costs.
- Provide written recommendations to field personnel for the proper control, handling, and disposal of waste associated with construction and D&D projects through knowledge of RCRA, WEMS, TSCA, FFCA, LDR information.
- For each project regular reports and documentation include at a minimum:
  - Project Summary (Monthly) - Required monthly at close of business of the third working day after Management Control System performance kits are issued, Project Management Reporting System
  - Project Issue Reports (Monthly) - As required based on project status, Open issues reports must be updated monthly and submitted with the Project Summary Report until closure, Project Management Reporting System.
  - Project Procurement Status (Biweekly) - Updates and additions are required biweekly on Thursday, Project Management Reporting System.
  - Progress Tracking system Report (Monthly) - Required monthly for select FM funded projects, redline hardcopies. Exact dates vary and are published in advance with an agenda/schedule.

- Project Performance Report (Monthly) - Submitted with Project Summary Report, Project Management Reporting System.

- Construction Management Review Presentation (Quarterly) - January (1st Q), April (2nd Q), July (3rd Q), October (4th Q), Miscellaneous data sources, inputs and outputs. Exact dates vary and are published in advance with an agenda/schedule.

- Project Management Plan/Work Package (Yearly) - Required in September, subsequent updates required as necessary with baseline change proposals, includes update of BCP Log and any subsequent supporting plans and/or documentation as required by the particular project as determined by DOE Orders and Procedures. Exact dates vary and are published in advance with an agenda/schedule.

- Project Funding Documentation (Yearly)- Project Data Sheet, Activities Sheet, and Justification/Validation Review packages and supporting information must be prepared yearly for budget call submittal in April/***May*** time period. Exact dates vary and are published in advance with an agenda/schedule.

6. **Mandatory Plant Rules and Regulations**

Work under this subcontract will be in accordance with all federal, state and local laws. The COEM Volume 4 (to be superceded by TBD) specifications address the conduct of construction operations. All personnel will be familiarized with RFP processes.

7. **Special Considerations**

All work to be performed using facilities, equipment, support services, and material provided by the Contractor.

Subcontractor personnel ***may*** be required to have access to the Protected Area or Material Access Areas. Access to these areas requires an active DOE "Q" or "L" clearance. Therefore, all Subcontractor personnel working in these areas will be required to have an active DOE "Q" or "L" clearance. All persons receiving access authorizations will be required to comply with administrative procedures for badging.

- Classification of information affecting project documentation.

  - All information **SHALL** be subject to classification reviews by an Authorized Derivative Classifier (ADC) prior to reproduction and release. Only personnel authorized by RFETS security ***may*** review information for proper classification.

**8. Project Reporting**

The Subcontractor reporting **SHALL** include, but is not limited to, the following:

All requisite project planning, scheduling, control, and reporting functions **SHALL** be provided by Subcontractor as ***may*** be required by authorized Task Order(s). Project data **SHALL** support earned value reporting against detailed measurable weekly milestones per the format required by Contractor. Subcontractor cost, schedule, scope reporting, and change control capability is required. Software required is provided.

9. **Project Meetings**

The following is a list of routine meetings which the Subcontractor ***may*** be expected to participate in during the performance of the subcontract. Specific dates, times, location, and number of meetings and any other meeting deemed necessary will be specifically identified by the Contractor.

- Plan of the Day
- A kick-off design/orientation meeting
- Bi-weekly project status meeting at RFETS
- Title I package plant-wide review meeting
- Title II package plant-side review meeting
- Preconstruction and D&D meeting
- Weekly construction review meetings
- Safety Meetings
- Pre-evolution Meetings
- Review of as-built drawings
- As-built drawings and field notes review
- As-built drawings for final release review

As-built CAD tapes review (within 30 days of final approval of as-built drawings)

# APPENDIX E-2

## Instructions For Construction Subcontractor Pool Application and Application For Pre-Qualification, Subcontractor Evaluation

### ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE (RFETS) APPROVED CONSTRUCTION SUBCONTRACTOR POOL OVERVIEW

### 1.0 PURPOSE

The RFETS Approved Construction Subcontractor Pool (Subcontractor Pool) is a listing of Subcontractors who have satisfied the minimum requirements in the areas of: financial responsibility, performance, and safety and health. The purpose of the Subcontractor Pool is to simplify, streamline, and expedite existing operations of the award process for subcontracts.

### 2.0 APPLICATION

Subcontractors may apply and be added to the Subcontractor Pool list in one of two ways:

- Prior to Bidding - By properly completing and fulfilling the requirements specified in *Attachment 1 - Approved Construction Subcontractor Pool Application* (application) prior to bidding for and being awarded a subcontract, or;

- During Bidding - By properly completing and fulfilling the requirements specified in *Attachment 1 - Approved Construction Subcontractor Pool Application* (application) during the process of bidding for a subcontract, but before award. All bidders that plan on subcontracting work shall be responsible for ensuring that all their lower tier Subcontractors submit *Attachment 1*.

In order to be "approved" and added to the Subcontractor Pool, Subcontractors are required to meet minimum criteria in the areas of financial responsibility, performance, and safety and health. With limited exception, a subcontract is not to be awarded to a non-approved Subcontractor(s) – refer to Section 8.0, Exceptions and Waivers.

Applications will be provided during the procurement process or if applying prior to a bid applications must be obtained from the Subcontract Pool Coordinator (SPC).

### 3.0 ADMINISTRATION AND RESPONSIBILITIES

**Subcontract Pool Coordinator (SPC)**

The SPC is responsible for:

- Overall administration of the Subcontractor Pool program.

- Remaining aware of the current minimum requirements for determination of responsibility.

- Coordinating review of Subcontractor applications with appropriate organizations.
- Maintaining and distributing (as appropriate) updated copies of the Subcontractor Pool list that indicates Subcontractors that have been approved to perform work and their related dates of expiration.
- Ensuring that Subcontract Performance Evaluation Worksheets are completed and submitted by Contract Technical Representatives (CTRs).

**K-H Safety and Health Departments**

K-H Safety and Health Department is responsible for:

- Conducting and documenting safety and health responsibility reviews.
- Submitting the results of safety and health responsibility reviews and associated paperwork to the SPC.

**Contracting Offices**

Contracting Office is responsible for:

- Ensuring that non-approved contractors do not perform work, unless "waived" – refer to Section 8.0.
- Ensuring receipt and proper completion of Subcontractor applications.
- Conducting and documenting the financial responsibility reviews.
- Submitting the results of financial responsibility reviews and associated paperwork to the SPC.
- Coordinating the submittal of Subcontractor applications to the SPC for processing.
- Notifying Subcontractors of their approval status.

**K-H Construction Departments**

K-H Construction Department is responsible for:

- Conducting and documenting the performance evaluation reviews.
- Submitting the results of the performance evaluation reviews and associated paperwork to the SPC.

***NOTE:***

*SPC will conduct performance responsibility reviews on all K-H tasks.*

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**Contract Technical Representative (CTR)**

The CTR is responsible for:

- Conducting and documenting the Subcontractor Performance Evaluations at the completion of contracts or tasks.

**Subcontractor**

The Subcontractor is responsible for:

- Ensuring that their application is properly completed and submitted.

## 4.0 PROCESS OVERVIEW

The following is a brief overview of the Subcontractor approval process as it is conducted during the normal "request for proposal" process. Prior to bidding type applications must be processed directly through the SPC.

**Subcontractor**

1. Submits application *(Attachment 1)* to the Contracting Office for review.

**Contracting Office**

***NOTE:***

*The Contracting Office shall not process incomplete applications and will notify the Subcontractor directly to obtain any missing or incomplete information.*

2. Receives the Subcontractor's application and reviews for completeness and financial responsibility.

***NOTE:***

*The "financial responsibility review" must result in a minimum of two (2) points for a Subcontractor to be considered "approved". If the Subcontractor fails the financial portion of the review, the Subcontractor shall not be approved to perform work unless a waiver is granted.*

3. Completes *Attachment 2 - Pre-Award Financial Responsibility Worksheet.*

4. Submits the Subcontractor's application and completed *Attachment 2* to the SPC for processing.

**SPC**

***NOTE:***

*The SPC will not process incomplete Subcontractor applications. If the Subcontractor's application is incomplete, the SPC will notify the Contracting Office who will be required to obtain the necessary information before the application can be processed.*

5. Receives the Subcontractor's application and completed *Attachment 2* from the Contracting Office.

6. Conducts or coordinates a technical performance review by the K-H Construction Department, as required.

7. Coordinates a technical safety and health review of the Subcontractors application with the K-H Safety and Health Department.

**K-H Construction Department**

8. Receives *Attachment 3 - Pre-Award Performance Responsibility Worksheet* from the SPC.

***NOTE:***

*The SPC will perform the technical performance review for K-H contracts and tasks only. The appropriate K-H Team Construction Department shall perform technical performance reviews for all other contracts and tasks unless they should decide to utilize the SPC for this review.*

9. Conducts a review and determines if the Subcontractor meets the minimum performance approval requirements.

***NOTE:***

*The "performance review" must result in a minimum of two (2) points or more for a Subcontractor to be considered "approved". If the Subcontractor fails the performance portion of the review, the Subcontractor shall not be approved to perform work, unless a waiver is granted.*

10. Documents the results of the review on *Attachment 3* and returns the "worksheet" to the SPC for further processing.

**K-H Safety and Health Department**

11. Receives the Subcontractor's application from the SPC.

***NOTE:***

*The "safety and health responsibility review" must result in a minimum of four (4) points for a Subcontractor to be considered "approved". If the Subcontractor fails the safety and health portion of the review, the Subcontractor shall not be approved to perform work, unless a waiver is granted.*

12. Conducts a "safety and health responsibility review" and determines if the Subcontractor meets the minimum safety and health approval requirements.

13. Documents the results of the review on *Attachment 4 - Safety and Health Responsibility Review* form and submits the "form" and Subcontractor's application to the SPC for further processing.

**SPC**

14. Receives the required information from the K-H Construction and Safety and Health Departments.

15. Notifies the Contracting Office as to whether or not the Subcontractor can be added to the approved Subcontractor Pool List.

16. Maintains all original documentation and files.

**Contract Technical Representative (CTR)**

17. After the completion of a contract or task, the CTR shall complete and submit *Attachment 5 - Subcontractor Performance Evaluation* to the SPC.

## 5.0 SUBCONTRACTOR POOL LIST

Subcontractors will be approved for a period of one calendar year, although they may be removed at any time from the Subcontractor Pool for cause - at the SPC's discretion, or if the Subcontractor fails to maintain current the requirements for determination of approval.

The SPC's determination of approval can take into account the Subcontractor's past record of performance for work conducted at RFETS.

At an appropriate time prior to the expiration of the Subcontractor's term of approval, the SPC will advise the Subcontractor in writing that his application requires updating. If the Subcontractor does not respond satisfactorily, the Subcontractor will be removed from the Subcontractor Pool List.

Removal from the Subcontractor Pool List may or may not be done by written notice.

## 6.0 BID LISTS

The SPC will provide the various K-H Safety and Health and Procurement departments with current copies of the Subcontractor Pool List.

When a Contract Technical representative (CTR) receives a requisition that is appropriate for bid by the Subcontractor Pool, the CTR will identify the appropriate areas of specialization and submit this information to the Subcontract Administrator (SA). The SA will send a request for proposal to pertinent members in the Subcontractor Pool.

Generally, all pertinent members of the Subcontractor Pool will be advised that a request for proposal will be available, though exceptions may be made if the SA deems it appropriate. A roster of all current Subcontractor Pool members will be included with the advertisement.

## 7.0 SMALL BUSINESS SET-ASIDE

Not all Subcontractors in the Subcontractor Pool will be those classified as "Small Business" under the rules of the U.S. Small Business Administration. Some may be large businesses, and some may be additionally designated "Small Disadvantaged Business" (SBD) or "Women-Owned Business."

Under the current procedures, all subcontracts with an estimated value of less than $3 Million Dollars are set aside for small business. There is a goal, expressed as a percentage of total dollars contracted, for SDB's and Women-Owned Businesses.

The responsibility for determining which contracts will be set-aside for SDB's and Women-Owned Businesses is made by the Contracting Office with the advice of the CTR. Lower tier Subcontractors to a small business Subcontractor may be a large business.

## 8.0 EXCEPTIONS AND WAIVERS

With limited exception, all work performed at RFETS will be performed by approved Subcontractors listed in the Subcontractor Pool.

***NOTE:***

*A Subcontractor working onsite, for a short duration (2 weeks or less), can obtain a one-time waiver without applying for approval to the Construction Subcontractor Pool. Generally, the only justification for a waiver is that the work to be performed can only be conducted by the proposed Subcontractor.*

A Subcontractor may only perform work if Attachment 6 – Request for Waiver From Subcontractor Approval Requirements form is completed and approved by the Contract Technical Representative (CTR), Subcontract Administrator (SA), and the Subcontract Pool Coordinator (SPC). Additionally, "acknowledgement signature" is required by the K-H Safety and Health department. Distribution of the signed waiver is to be made as stated on Attachment 6.

## ATTACHMENT 1

## SITE APPROVED CONSTRUCTION SUBCONTRACTOR POOL APPLICATION

- Instructions (1 Page)
- Area of Specialization (1 Page)
- Representations and Certifications (1 Page)
- References (1 Page)
- Safety and Health Worksheet (1 Page)

## SITE APPROVED CONSTRUCTION SUBCONTRACTOR POOL APPLICATION

### Instructions

With limited exception, all work performed at Rocky Flats Environmental Technology Site (RFETS) will be performed by approved Subcontractors listed in the Site Approved Construction Subcontractor Pool.

Prior to conducting work, certain Subcontractor compliance and completion requirements will require verification while other requirements must be certified by the Subcontractor. All forms are to be legible and completed in their entirety with non-applicable blocks noted with a "N/A".

Please complete the following forms attaching the requested information as stated:

- Area of Specialization Form

  Required Attachments: None

- Representations and Certifications Form

  Required Attachments: None

- References Form

  Required Attachments: None

- Safety and Health Worksheet Form

Required Attachments:

1. A signed letter from Workers Compensation provider (not your company) stating the company's three most current years Workers Compensation Experience Modification Rates (EMRs).

2. Copies (one each) of the last three years of your company's Bureau of Labor Statistics (BLS) Log and Summary of Occupational Injuries and Illnesses (OSHA No. 200). These logs are to be legible, complete, and signed and dated by a company representative.

3. Copies (one each) of transmittal letters describing the outcome and number of citations for each Occupational Safety and Health Administration/Colorado Department of Public Health and Environment (OSHA/CDPHE) inspection in the past three years. List any citations received, indicating the type of citation, fines levied by OSHA, and negotiated settlements or fines paid to OSHA.

4. One copy of your company's written safety and health policy and procedures manual.

## AREA OF SPECIALIZATION

Company: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Telephone Number: _____ Fax Number: _____

1. Select one:
   - O General Subcontractor
   - O Subcontractor Only

2. Identify the Subcontractor's areas of construction specialization from the list below:

   - O Miscellaneous General Construction
   - O Design/Build
   - O Paving
   - O Roofing
   - O Painting
   - O Special Protective Coatings
   - O Mechanical, Plumbing, Piping
   - O Fire Protection (Sprinkler)
   - O HVAC
   - O Electrical, Fire Alarm, Instrumentation
   - O Telecommunications
   - O Earthwork
   - O Environmental Restoration
   - O Asbestos Abatement
   - O Other _____

Prepared By: _____ Title: _____ Date: _____

## REPRESENTATIONS AND CERTIFICATIONS

I, _____, as _____, of _____,
Name of Person Title Name of Company (Bidder)

represent and certify:

1. ___ The Bidder is a large business concern, as defined by the Small Business Administration.
   ___ The Bidder is a small business concern, as defined by the Small Business Administration.
   ___ The Bidder is a small disadvantaged business concern, as defined by the Small Business Administration.
   ___ The Bidder is a woman owned business concern as defined by the Small Business Administration.

2. The Bidder has read and agrees to abide by all applicable OSHA regulations and Site Safety and Health procedures and requirements.

3. The Bidder has adequate financial resources to perform Contract work and can bond work valued up to $____ _____.

4. The Bidder has the necessary organization, experience, accounting, operations controls, and technical skills, or the ability to obtain them. This may include such elements as Production Control procedures, Property Control systems, and Quality Assurance measures of services to be performed.

5. The Bidder will be available to participate in a site tour with as little as three days notice. The Bidder will accept notice issued by U.S. mail, telephone, or telefax. The Bidder will attend the site tours for all projects on which Bidder submits a bid.

6. The Bidder will be able to provide a sealed bid for the work within seven calendar days of the site tour.

7. The Bidder will agree to participate in the wrap-up insurance plan.

8. The Bidder will be able to mobilize within fourteen calendar days of Notice of Award.

9. The Bidder has the necessary production, construction, and technical equipment and facilities, or the ability to obtain them.

10. The Bidder is otherwise approved and eligible to receive an award under applicable laws and regulations.

11. The Bidder will submit a Quality Assurance plan for approval for Design/Build contracts, if required.

Dated this _____day of_____, 199_____.

| | | |
|---|---|---|
| _____ | _____ | _____ |
| Signature | Print Name of Signor | Title |
| _____ | _____ | |
| Company Name | Address | |
| _____ | _____ | _____ |
| City and State | Phone Number | Facsimile Number |

*Note: Reading material required by the representations and certifications is available at: Rocky Flats Reading Room Front Range Community College Library, 3645 West 112th Avenue, Westminster, Colorado 80030, (303) 469-4435, Hours: Monday-Thursday 8:00 a.m. - 4:30 p.m.*

## REFERENCES

**Project #1**

Name of Project:_____ Dollar Value:_____

Location (City and State):_____

Brief Description: _____

Client Project Manager
or Contracting Officer:_____ Phone Number:_____

**Project #2**

Name of Project:_____ Dollar Value:_____

Location (City and State):_____

Brief Description: _____

Client Project Manager
or Contracting Officer:_____ Phone Number:_____

**Project #3**

Name of Project:_____ Dollar Value:_____

Location (City and State):_____

Brief Description: _____

Client Project Manager
or Contracting Officer:_____ Phone Number:_____

## SAFETY AND HEALTH WORKSHEET

***NOTE:*** *An asterisk denotes that an attachment is required for this item. Please refer to instructions for further information.*

Main Standard Industrial Classification (SIC) Number:_____

Average # of Employees (Last 3 Complete years):

_____ _____ _____ 3 Year Average_____
Year: Year: Year:

Total # of Hours Worked (Last 3 years)

_____+ _____+ _____= _____
Year: Year: Year: Total

Workers Compensation Experience Modification Rate (Last 3 Complete years)*:

_____ _____ _____ 3 Year Average_____
Year: Year: Year:

Statistics (BLS) Log and Summary of Occupational Injuries and Illnesses (OSHA No. 200) (Last 3 Complete Years)*:

| Year | # of Recordable Cases | Incidence Rate | # of Day Away from Work Cases | Incidence Rate |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |

Has your company received any citations from the Occupational Safety and Health Administration (OSHA) or Colorado Department of Public Health and Environment (CDPHE) in the past three years*?

Yes_____ No_____

If yes, attach copies (one each) of any citations received, indicating the type of citation, fines levied, and negotiated settlements or fines paid.

I certify to the best of my knowledge that the above information is true and correct.

_____ _____ _____
Printed Name Signature Date

## ATTACHMENT 2

## PRE-AWARD FINANCIAL RESPONSIBILITY WORKSHEET

| PRE-AWARD FINANCIAL RESPONSIBILITY WORKSHEET |
|---|

Applicant:

| BONDING (Circle one and complete Bonding Capacity $) | Yes | No |
|---|---|---|
| Does this company have adequate bonding capacity to accomplish the work to be performed? | 1 | -2 |
| What is the company's bonding limit? | $ | |

| FINANCIAL RATING (Circle one) | Yes | No |
|---|---|---|
| Is the company's financial rating (i.e. I.E., D&B Rating, TRW, or Independent Rating) favorable? | 1 | -2 |

| TOTAL | |
|---|---|

| REMARKS |
|---|
| |

***Note:***

*The "financial responsibility review" must result in a minimum of two (2) points for a Subcontractor to be considered "approved". If the Subcontractor fails the financial portion of the review, the Subcontractor shall not be approved to perform work unless a waiver is granted.*

# ATTACHMENT 3

## PRE-AWARD PERFORMANCE RESPONSIBILITY WORKSHEET

**PRE-AWARD PERFORMANCE RESPONSIBILITY WORKSHEET**

**Applicant:**

| DEBARRED OR INELIGIBLE LIST (Circle all that apply) | Yes | No |
|---|---|---|
| Is the company on the Site Subcontractor Debarred List? | -4 | 0 |
| Is the company on the Site Subcontractor Ineligible List? | -4 | 0 |

| OFF SITE CONTRACTS – REFERENCES CHECK (Circle One) | Yes | No |
|---|---|---|
| Did the company fail to submit references? | -4 | 0 |
| Were all 3 of the company's references favorable? | 2 | 0 |
| Were 2 out of 3 of the company's references favorable? | 1 | 0 |
| Were 1 out of 3 of the company's references favorable? | 0 | 0 |
| Were all 3 of the company's references unfavorable? | -4 | 0 |

| ON SITE CONTRACTS – PERFORMANCE EVALUATIONS (Circle one) | Yes | No |
|---|---|---|
| Was the average of all past performance evaluations 22.1 – 33.0? | 2 | 0 |
| Was the average of all past performance evaluations 11.1 – 22.0? | 1 | 0 |
| Was the average of all past performance evaluations .1 – 11.0? | 0 | 0 |
| Was the average of all past performance evaluations <.1? | -1 | 0 |
| The company did not have any past performance evaluations? | 1 | 0 |

| TOTAL | |
|---|---|

| REMARKS |
|---|
| |
| |
| |
| |
| |

***Note:***

*The "performance responsibility review" must result in a minimum of two (2) points for a Subcontractor to be considered "approved". If the Subcontractor fails the financial portion of the review, the Subcontractor shall not be approved to perform work unless a waiver is granted.*

## ATTACHMENT 4

## SAFETY AND HEALTH RESPONSIBILITY REVIEW FORMS

Safety and Health Responsibility Review Transmittal Example (1 Page)

Safety and Health Responsibility Review Worksheet Example (1 Page)

## SAFETY AND HEALTH RESPONSIBILITY REVIEW TRANSMITTAL

DATE: [ ]

TO: Subcontractor Pool Coordinator (SPC), Kaiser Hill Construction, Bldg. 130, X2537

FROM: Douglas T. Rosco, Kaiser-Hill Safety & Industrial Hygiene, Bldg. T452C, X6672

SUBJECT: Contractor Safety and Health Responsibility Review for Placement on the Kaiser Hill Company Approved Bidders List

APPLICANT: [ ]

Kaiser-Hill Safety & Industrial Hygiene (S&IH) has completed a safety and health responsibility review (attached) for the above listed applicant. If you have any questions, please contact me at Extension 6672, or Digital Pager 3002.

Question:
Based on the information submitted and our review, has the applicant provided evidence which meets requirements expected of applicants' approved to perform construction work at the Rocky Flats Environmental Technology Site (Site)?

[ ]

Question:
Based on the information submitted and our review, should the applicant be approved to perform work at the Rocky Flats Environmental Technology Site (Site)?

[ ]

**Remarks:**

[ ]

Attachment: Safety and Health Responsibility Review Worksheet

# SAFETY & HEALTH RESPONSIBILITY REVIEW WORKSHEET

**Type of Review:**

**Applicant:**

Note: All evaluations (New and Annual) are to take into account the company's last three (3) calendar years of data and information.

| 1. Evaluation of Workers Compensation Experience Modification Rate (EMR) | Criteria (as % of 1) | Points | Score |
|---|---|---|---|
| EMR = | <85% | 3 | |
| % of 1 = | 85% - 108% | 2 | |
| | >108% | 0 | |

| 2. Evaluation of OSHA 200 Injury/Illness Rates Compared to BLS National Average for SIC Code | Criteria | Points | Score |
|---|---|---|---|
| 2A. OSHA 200 - Recordable Case Rate (Total of Column A on the OSHA 200 Log) | | | |
| # of Cases = | <75% | 2 | |
| # of Man-hours Worked = | 75% - 100% | 1 | |
| SIC = | >100% | 0 | |
| BLS Rate = | | | |
| Rate = | | | |
| % of Rate = | | | |
| 2B. OSHA 200 - Days Away From Work Case Rate (Total of Columns 3 and 10 on the OSHA 200 Log) | Criteria | Points | Score |
| # of Cases = | <75% | 2 | |
| # of Man-hours Worked = | 75% - 100% | 1 | |
| SIC= | >100% | 0 | |
| BLS Rate = | | | |
| Rate = | | | |
| % of Rate = | | | |

| 3. Evaluation of Company's Written Safety and Health Program | Points | Score |
|---|---|---|
| • Well Developed Program Containing All Elements Outlined By OSHA Safety and Health Assessment Worksheet | 3 | |
| • Satisfactory Program Containing the Majority Elements, But Not Indicating High Level of Development | 2 | |
| • Minimally Acceptable Program Containing Some of Required Elements, But Not Well Developed | 1 | |
| • Unacceptable Program, Does Not Indicate Required Level of Occupational Safety and Health Expertise | 0 | |

| 4. Evaluation of Company's OSHA Citation History | Points | Score |
|---|---|---|
| • OSHA Inspections with Willful Citations Upheld Through Formal Hearing Procedures (Automatic Disqualification) | -10 | |

| TOTAL | |
|---|---|

# ATTACHMENT 5

## SUBCONTRACTOR PERFORMANCE EVALUATION

Subcontractor Performance Evaluation Instructions (6 Pages)

Subcontractor Performance Evaluation Form (1 Page)

# SUBCONTRACTOR PERFORMANCE

| SUBCONTRACTOR (1) | SUBCONTRACTOR ADDRESS (STREET, CITY, STATE) (2)<br>TELEPHONE NO. |
|---|---|

| | | |
|---|---|---|
| PROJECT TITLE (3) | | PROJECT (4) |
| SUBCONTRACT NO. (5) | SCHEDULED START DATE (6) | ACTUAL START DATE (7) |
| ORIGINAL BID PRICE (8) | FINAL COST (9) | PROJECT MANAGER (10) |
| DESCRIPTION OF PROJECT (11) | | CONSTRUCTION SUPERINTENDENT (12) |
| | | FIELD ENGINEER (13) |

| | OBJECTIVE | | | SUBJECTIVE | | |
|---|---|---|---|---|---|---|
| | FRACTION | BASE POINTS | SCORE | FRACTION | BASE POINTS | SCORE |
| S & | 0.20 | (14) | | 0.05 | (15) | |
| OSHA | 0.50 | | | | | |
| LWCR | 0.30 | | | | | |
| LWDR | 0.20 | | | | | |
| SUB TOTAL | 1.00 | | | | | |
| SUB SCORE | 0.20 X S&H Sub Total | | | | | |
| | | | | | | |
| SCHEDUL | 0.20 | (16) | | 0.05 | (17) | |
| | | | | | | |
| QUALIT | 0.20 | (18) | | 0.05 | (19) | |
| | | | | | | |
| COST | 0.12 | (20) | | 0.03 | (21) | |
| | | | | | | |
| | 0.04 | (22) | | 0.01 | (23) | |
| TIME | 0.50 | | | | | |
| ACCEPT | 0.50 | | | | | |
| SUB TOTAL | 1.00 | | | | | |
| SUB SCORE | 0.04 x Submittal Sub Total | | | | | |
| | | | | | | |
| MGT | | | | 0.05 | (24) | |
| | | | | | | |
| SUB TOTAL | | | (25) | | | (26) |
| TOTAL(WPS) | | | | | | (27) |

PREPARED BY CTR (28) _____
Name Signature Date

**CONCURRENCE:**

CONTRACTING OFFICER (29) _____

FIELD ENGINEER (30) _____

SAFETY REPRESENTATIVE (31) _____

PROJECT MANAGER (32) _____

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**Subcontractor Performance Evaluation Instruction**

1. Provide the full legal name of subcontractor.
2. Provide address and telephone number of subcontractor.
3. Provide official complete project title.
4. Provide project number.
5. Provide subcontract number.
6. Provide scheduled start date, per subcontract.
7. Provide actual start date from construction records.
8. Provide original bid price.
9. Provide final cost.
10. Provide Project Manager's name.
11. Provide a description of the project.
12. Provide Construction Superintendent's name.
13. Provide Field Engineer's name.
14. For the S&H Objective Performance Measure (20%), there are three component Safety and Health performance indicators which make up the quantitative portion of the S&HPI. These industry standard performance indicators compare the sub-contractor's safety performance to national average rates. Following is a description of the S&H component performance indicators and their weight values:

    - OSHA Reportable Rate (OSHA)
      National Average Rate (50%)
    - Lost Work Case Rate (OSHA)
      National Average Rate (30%)
    - Lost Work Day Rate (OSHA)
      National Average Rate (20%)

S&HPI scoring values and descriptive grades for each of the performance indicators are as follows:

<0.85 = Excellent (3 base performance points)
>0.85 - 0.95 = Good (2 base performance points)
>0.95 - 1.05 = Fair (1 base performance point)
>1.05 = Unsatisfactory (0 base performance points)

15. For the S&H Subjective Performance Measure (5%), the CTR will score the subcontractor taking into account special project requirements that may not be reflected in the quantitative score. Subcontractor performance are scored as follows:

    Excellent = 3 base performance points
    Good = 2 base performance points
    Fair = 1 base performance point
    Unsatisfactory = 0 base performance points

16. For the Schedule Objective Performance Measure (20%), the quantitative portion of the Schedule Performance
    Index (SPI) is calculated as follows:

    $$SPI = \frac{\text{Actual work day duration from start to task substantially complete}}{\text{Baseline work day duration from start to planned date task substantially complete}}$$

    Two factors to be considered in calculating the "Actual" workday duration are the actual workdays scheduled to complete the task and whether or not the task was started on the agreed upon start date. Workdays would be added to the completion duration on a one for one basis if the subcontractor arbitrarily chose to start the task later than the agreed upon start date.

SPI scoring values and descriptive grades are as follows:

<0.95 = Excellent (3 base performance points)
≥0.95 - 1.00 = Good (2 base performance points)
>1.00 - 1.05 = Fair (1 base performance point)
>1.05 = Unsatisfactory (0 base performance points)

17. For the Schedule Subjective Performance Indicator (5%), the CTR will score the subcontractor taking into account special project requirements that may not be reflected in the quantitative score. Subcontractor performance is scored as follows:

    Excellent - 3 base performance points
    Good = 2 base performance points
    Fair = 1 base performance point
    Unsatisfactory = 0 base performance points

18. For the Quality Objective Performance Measure (20%), the quantitative portion of the QPI is determined from a comparison of the adjusted number of measurable or valid Non Conformance Reports (NCRs) at substantial completion of a task versus the "baseline" number of planned NCRs.

    Since the cost/schedule impacts to a task may vary significantly, due to the resolution of an NCR, a graded multiplier ranging from 1 to 10 may be applied to the absolute number of valid NCRs to account for these impacts. A 1 multiplier could be used where the resolution impacts to cost/schedule are "minor" or "insignificant" whereas a 10 multiplier may be applied to the absolute number when the resolution impacts to cost/schedule are "major" and "significant". Through the use of this graded NCR multiplier, the evaluator can make discretionary adjustments to the QPI to account for the cost/schedule impact associated with the resolution of an NCR.

    Using a graded approach, the Project Manager will coordinate with the CTR to establish a baseline number of NCRs to measure subcontractor quality performance. The objective QPI will be calculated as follows:

    $$QPI = \frac{\text{Adjusted number of actual NCRs at task substantially complete}}{\text{Baseline number of NCRs planned at task substantially complete}}$$

    QPI scoring values and descriptive grades for each of the performance indicators are as follows:

    <0.90 = Excellent (3 base performance points)
    ≥0.90 - 1.15 = Good (2 base performance points)
    >1.15 - 1.30 = Fair (1 base performance point)
    >1.30 = Unsatisfactory (0 base performance points)

19. For the Quality Subjective Performance Indicators (5%), the CTR will score the subcontractor taking into account special project requirements that may not be reflected in the quantitative score. Subcontractor performance are scored as follows:

    Excellent = 3 base performance points
    Good = 2 base performance points
    Fair = 1 base performance point
    Unsatisfactory = 0 base performance points

20. For the Budget Objective Performance Measure (12%), the quantitative portion of the Budget Performance Index (BPI) is calculated as follows:

    $$BPI = \frac{\text{Actual cost obligated at task completion}}{\text{Bid Cost + approved changes (approved subcontract construction baseline value)}}$$

BPI scoring values and descriptive grades are as follows:

<0.95 = Excellent (3 base performance points)
≥0.95 - 1.00 = Good (2 base performance points)
>1.00 - 1.05 = Fair (1 base performance point)
>1.05 = Unsatisfactory (0 base performance points)

21. For the Budget Subjective Performance Indicator (3%), the BPI evaluation is based on a subjective evaluation of the subcontractor's ability to effectively and efficiently control, document, report, and manage project costs. Subcontractor performance are scored as follows:

    Excellent = 3 base performance points
    Good = 2 base performance points
    Fair = 1 base performance point
    Unsatisfactory = 0 base performance points

22. For the Submittal Objective Performance Measure (4%), there are two component submittal performance indicators that make up the quantitative portion of the Submittal Index (SI). The two component Submittal performance indicators are related to the timeliness of the submittals and the first time acceptability of the submittals. Following is a description of the component performance indicators and their weighting values:

    - Scheduled Submittal Index (50%) - The SSI is the number of submittals received on/or ahead of schedule divided by the total number of submittals due per the baseline.

    - Submittal Acceptance Index (50%) - The SAI is the number of submittals accepted the first time divided by the total number of submittals due to the baseline..

    The scoring values for each of these component performance indicators and their descriptive grades are as follows:

    1.00 = Excellent (3 base performance points)
    0.97- <1.00 = Good (2 base performance points)
    0.95- <0.97 = Fair (1 base performance point)
    <0.95 = Unsatisfactory (0 base performance points)

    As indicated above, 50% of this performance indicator is concerned with the received submittal being acceptable to the customer the first time.

23. For the Submittal Subjective Performance Indicator (1%), the CTR will score the subcontractor taking into account special project requirements that may not be reflected in the quantitative score. Subcontractor performance are scored as follows:

    Excellent = 3 base performance points
    Good = 2 base performance points
    Fair = 1 base performance point
    Unsatisfactory = 0 base performance points

24. The Management Performance Index (5%)is 100% subjective. This indicator rates how effective, cooperative, responsive, and supportive the subcontractor management is to the customer.

    The MPI grading values and descriptive grades are as follows:

    Excellent = 3 base performance points
    Good = 2 base performance points
    Fair = 1 base performance point
    Unsatisfactory = 0 base performance points

25. Total all scores for Objective

26. Total all scores for Subjective

27. Total score equals the sum of Objective and Subjective scores

    *NOTE: any performance measure/indicator marked "NA" earns 1 base point.*

28. Provide signature of CTR.

29. Provide signature of Contracting Officer.

30. Provide signature of Field Engineer.

31. Provide signature of Safety Representative

32. Provide signature of project manager

# SUBCONTRACTOR PERFORMANCE EVALUATION

| SUBCONTRACTOR | SUBCONTRACTOR ADDRESS (STREET, CITY,STATE)<br><br>TELEPHONE NO. |
|---|---|

| PROJECT TITLE | | PROJECT NO. |
|---|---|---|
| CONTRACT NO. | SCHEDULED START DATE | ACTUAL START DATE |
| ORIGINAL BID PRICE | FINAL COST | PROJECT MANAGER |
| DESCRIPTION OF PROJECT | | CONSTRUCTION SUPERINTENDENT |
| | | FIELD ENGINEER |

| | OBJECTIVE | | | SUBJECTIVE | | |
|---|---|---|---|---|---|---|
| | FRACTION | BASE POINTS | SCORE | FRACTION | BASE POINTS | SCORE |
| S & | 0.20 | | | 0.05 | | |
| OSHA | 0.50 | | | | | |
| LWCR | 0.30 | | | | | |
| LWDR | 0.20 | | | | | |
| SUB TOTAL | 1.00 | | | | | |
| SUB SCORE | 0.20 X S&H Sub Total | | | | | |
| | | | | | | |
| SCHEDUL | 0.20 | | | 0.05 | | |
| | | | | | | |
| QUALIT | 0.20 | | | 0.05 | | |
| | | | | | | |
| COST | 0.12 | | | 0.03 | | |
| | | | | | | |
| | 0.04 | | | 0.01 | | |
| TIME | 0.50 | | | | | |
| ACCEPT | 0.50 | | | | | |
| SUB TOTAL | 1.00 | | | | | |
| SUB SCORE | 0.04 x Submittal Sub Total | | | | | |
| | | | | | | |
| MGT | | | | 0.05 | | |
| | | | | | | |
| SUB TOTAL | | | | | | |
| TOTAL(WPS) | | | | | | |

PREPARED BY CTR _____
Name Signature Date

**CONCURRENCE:**

*CONTRACTING OFFICER* _____

FIELD ENGINEER _____

SAFETY REPRESENTATIVE _____

PROJECT MANAGER _____

## ATTACHMENT 6
# REQUEST FOR WAIVER FROM SUBCONTRACTOR APPROVAL REQUIREMENTS

**REQUEST FOR WAIVER FROM SUBCONTRACTOR APPROVAL REQUIREMENTS**

NOTE: Type or print all entries, except where noted.

**REQUESTER INFORMATION**

Name: _____ Department: _____

Title/Company: _____ Extension: _____

**SUBCONTRACTOR AND PROJECT INFORMATION**

Company Name: _____

Project & Location: _____

Work to be Performed: _____ Start and End Dates _____

**WHAT MINIMUM APPROVAL REQUIREMENTS DOES THE SUBCONTRACTOR NOT MEET?** (Check all that apply)

☐ Financial ☐ Performance ☐ Safety and Health

**JUSTIFICATION FOR WAIVER** (Be specific and explain why company can not be approved - attach additional sheet(s) as necessary.)

| |
|---|
| |
| |
| |
| |
| |

| Requester (Print and Sign) | Date: |
|---|---|

**APPROVAL**

Approval shall be granted only by the KH Prime Contractor Contract Technical Representative (CTR) and Subcontract Administrator (SA) assigned and responsible for the project. Approval of this waiver is contingent upon compliance with the following requirements.

1. All work shall be conducted in accordance with the Project Safety and Health Plan and Site safety & health requirements.
2. A project safety and health orientation shall be conducted prior to work.
3. A Job Hazard Analysis (JHA) shall be developed in accordance with MAN-071-IWCP, Integrated Work Control Manual.
4. A Job Task Briefing or "Pre-Evolution Briefing" (whichever is applicable) shall be held with all affected personnel prior to work.
5. A documented visual tool and equipment inspection shall be conducted prior to work - all must comply with applicable OSHA standards.
6. A designated Project Safety Professional/Designee and CTR (or their designee) shall continuously monitor all work activities.

| | |
|---|---|
| Designated Project Safety Professional/Designee | |
| CTR or their designee | |

Signature below indicates acceptance of responsibility for ensuring that the above requirements are met.

| | |
|---|---|
| Contract Technical Representative (Print and Sign) | Date: |
| Subcontract Administrator (Print and Sign) | Date: |
| Subcontract Pool Coordinator (Print and Sign) | Date: |

**ACKNOWLEDGEMENT**

| | |
|---|---|
| K-H Health Department (Print and Sign) | Date: |

**Distribution:** Original – CTR; Copy #1- Subcontract Administrator; Copy #2 – K-H Team Safety & Health Dept.; Copy #3 – Subcontract Pool Coordinator

# APPENDIX E-3
## Decision Document Guidance

### DECISION DOCUMENT GUIDANCE

The DPP is the RFCA document that describes the steps for accomplishing the Vision of closing Rocky Flats, in terms of decommissioning buildings for their removal or reuse. It establishes the overall framework for decommissioning a building leading up to either its release for reuse or its demolition and disposal. It elaborates on the relevant portions of the building disposition process described in RFCA Attachment 9. For each building on Site, the DPP describes a process that starts with a scoping meeting, proceeds to a reconnaissance level survey for contamination and a hazard assessment, follows the report of these activities' findings with the removal of contamination or physical hazards identified and ends, for those buildings requiring decontamination, with a final characterization survey to document that the building is ready for reuse or dismantlement and demolition. Depending on the level of contamination, decontamination may be required for the buildings, or parts of the building. In some instances, decontamination may not be practicable and the building may be dismantled and demolished as low level or low level mixed waste. Consistent with Section 3.3.4, buildings determined after the reconnaissance level characterization to be free of contamination may go directly to reuse, dismantlement or demolition using applicable federal property disposition rules. The Site will also follow, as necessary, any other applicable legal requirement associated with the disposal of excess federal property, including the remediation of hazards associated with materials containing polychlorinated biphenyls (PCBs) and asbestos. Pursuant to RFCA ¶ 119(k), the DPP is a site-wide decision document subject to the review and approval of both EPA and CDPHE.

Pursuant to RFCA Attachment 9, "Building Disposition," a DOP will be developed for any building found, as a result of reconnaissance level characterization, to have significant radioactive contamination or hazards. The DOP will present an activity-based program to decontaminate the locations identified in that building's reconnaissance characterization study as contaminated or presented a physical hazard. The DOP will include risk, economic and engineering assessments. Pursuant to RFCA ¶ 118(l), DOPs for major nuclear facilities are decision documents subject to the review and approval of the LRA. Since all of the Site's major nuclear facilities are located in the Industrial Area, the practical outcome of this direction is that CDPHE, the LRA in the Industrial Area, will be the agency reviewing and approving DOPs. Also, since it appears likely that the decommissioning of each building needing a DOP will take at least six months to complete, the Site intends to develop and seek approvals for the DOPs though the RFCA IM/IRA process.

If DOE proposes to take actions that appear to require consultation with the LRA or require a RFCA decision document, the Site project point of contact will seek concurrence from the LRA before performing the actions. In seeking this concurrence, DOE will provide the LRA with data and a description of work which demonstrate that the work can be performed without a threat of release of a hazardous substance. DOE will discuss the relationship of the proposed activity to the overall CPB and the disposition plans for the buildings as they are known at the time. This demonstration may be made informally to the LRA project point of contact, with concurrence documented for the building administrative record. The Site and LRA point of contact will use the "RFCA Decision Document Requirement Method" (see next paragraph) to determine if the actions require preparation of a RFCA decision document. The parties to this DPP anticipate that this and other questions regarding the necessity of decision documents for performing building disposition work will be resolved through ongoing consultation among the respective project points of contact.

The following method provides the screen the Site and LRA project points of contact will use in determining if a RFCA decision document is needed for a specific activity or related group of activities.

## RFCA Decision Document Decision Method

I Purpose:

A. Provide a decision method (screen) to facilitate determining if an activity or related set of activities would be classified as requiring a RFCA decision document, that is, a DOP, PAM, IM/IRA or RFCA Standard Operating Protocol (RSOP).

II The method facilitates:

A. implementing the consultative process;
B. project planning at an early stage (scope, schedule, budget);
C. determining if waste is "process" or remediation waste;
D. determining National Environmental Policy Act (NEPA) document requirements;
E. stakeholder involvement and schedule;
F. determining if consultation with the LRA or preparation of a RFCA decision document is needed.

III The method is for use by:

A. the project points of contact;
B. oversight organizations internal and external to the Site.

IV Method:

A. The Site project point of contact will determine the initial scope and schedule for the activity and related activities.
B. The Site project point of contact will do an initial screen to determine if activity is decommissioning using the following screen.

A RFCA decision document (such as a PAM, IM/IRA or DOP) is required, will be prepared, and regulatory approval received before an activity is undertaken that meets all of the following criteria:

1. is not considered "maintenance[1]" or process waste management[2]; and
2. does not support SNM removal for the purpose of deactivation or other pre-decommissioning actions; and
3. involves work that is likely to impact systems or equipment contaminated with radiological or other hazardous substances; and
4. relates to the building proper (that is, removal of fixed equipment and structural components) but exclude follow-on environmental remediation activities.

Activities that meet the above criteria, and that are otherwise regulated (for example, RCRA closure, asbestos and polychlorinated biphenyl removal, underground storage

[1] "Maintenance" includes activities that are necessary to continue a building's current mission, maintain a building's safety envelope, or modify a building for a change in mission (except a change of mission to decommissioning).
[2] "Process waste" means waste generated before "decommissioning" commences for the activity being analyzed.

tank closures, etc.) may be regulated either under a RFCA decision document or under the other regulatory process.

Figure 1.1-1 provides a flowchart of the above criteria. DOE expects open communication and consultation between the project points of contact.

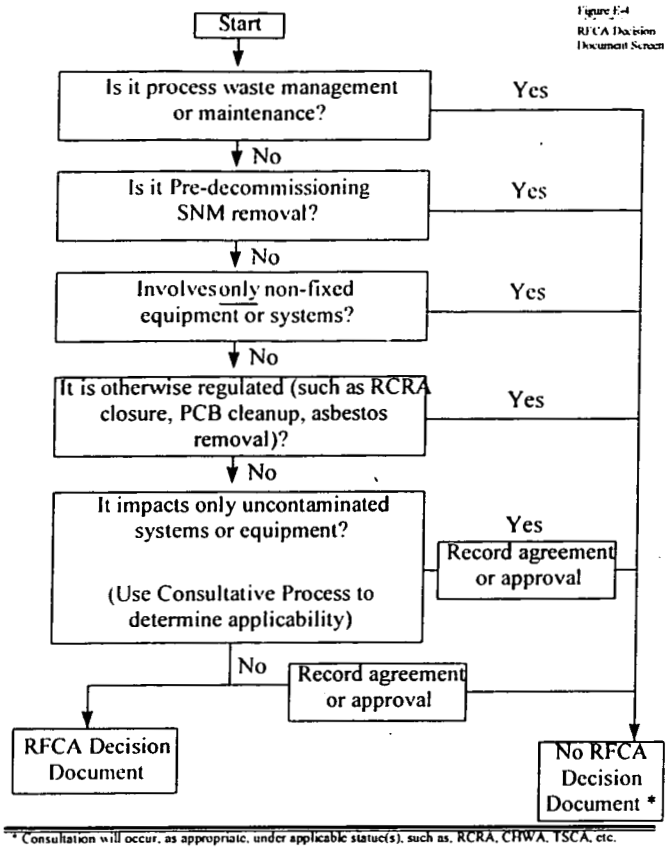
Some activities that do not meet all of these criteria may be included for information in some decision documents.

C. If the initial screen shows the activity may require a RFCA decision or is in the "gray area" between what may or may not need a RFCA decision document, the Site project point of contact will arrange a consultative briefing of the regulators. The briefing will include a discussion of the scope and schedule for the project. The briefing should follow the format established in the DPP for DOP content to ensure the discussion is focused and the information typically needed by the LRA is presented in a reasonably consistent format. The graded approach should be used in determining the level of detail for the briefing.

D. The LRA will review the results of the Site's screen to determine if it agrees with the Site determination.

E. If the collaborative agreement is that the activity does not require a RFCA decision document, the Site project point of contact will:
- document the agreement in the manner agreed to during the meeting with the LRA project point of contact; and
- document the decision in the Administrative Record; and
- monitor the project scope to ensure it remains within that agreed to; and
- notify the LRA before the project goes out of scope if possible, in sufficient time to initiate consultation with the LRA on the issue. A changed or invalid assumption that changes the scope would be part of the consultation discussions.

F. If the collaborative agreement is that the activity does require a RFCA decision document, the following actions will occur.
1. The consultative process will follow the requirements in RFCA and the DPP to determine what type of decision document is needed. The LRA will identify as specifically as possible what, if any, additional information is needed for approval of the activity. This will include information needed by the Support Regulatory Agency.
2. A schedule will be agreed to for:
   - the Site to provide the additional information;
   - the LRA to complete its review of the information;
   - the public comment period and review times;
   - any other schedule issues involving both the Site and the LRA; and,
   - the Site to provide any additional information.
3. The Site will then draft the decision document and involve the regulators as the document is drafted.


Start
Is it process waste management or maintenance?
Yes
No
Is it Pre-decommissioning SNM removal?
Yes
No
Involves only non-fixed equipment or systems?
Yes
No
It is otherwise regulated (such as RCRA closure, PCB cleanup, asbestos removal)?
Yes
No
It impacts only uncontaminated systems or equipment?
(Use Consultative Process to determine applicability)
Yes
Record agreement or approval
No
Record agreement or approval
RFCA Decision Document
No RFCA Decision Document *
* Consultation will occur, as appropriate, under applicable statue(s), such as, RCRA, CHWA, TSCA, etc.

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# APPENDIX E-4
## Proposed RFCA DECISION DOCUMENT Template

### TEMPLATE CONTENTS

Executive Summary

Section 1.0 Introduction (Purpose and Scope)

Section 2.0 Project (Building/Cluster) Description

Section 3.0 Alternatives Analysis and Selection

Section 4.0 Project Approach

Section 5.0 Health and Safety

Section 6.0 Waste Management

Section 7.0 Compliance with ARARs

Section 8.0 Environmental Consequences of the Action

Section 9.0 QA/QC

Section 10.0 Implementation Schedule

Section 11.0 Project Organization

Section 12.0 Comments and Comment Responsiveness Summary

Section 13.0 References

Appendices (If required)

# RFCA DECISION DOCUMENT PREPARATION GUIDANCE

The DOP will be prepared and approved in accordance with the RFCA IM/IRA approval process. The DOP will contain sufficient information so the regulators can be satisfied that the project can proceed compliantly, with a high probability of success. Support buildings associated with a major project ***may*** be included in its DOP if they would be managed in the same project. A graded approach will be followed to determine the level of detail in the table of contents for PAMs. Using a graded approach, a DOP or IM/IRA at a minimum will contain the following information.

## EXECUTIVE SUMMARY

## 1. INTRODUCTION

- Include purpose of document and scope. Scope will include a description of the facility after decommissioning activities are completed, e.g., buildings to slab.
- Include brief justification explaining consistency with ISB, or if not, logic for doing, e.g., reduced risk, costs, etc. (Explanation for why it is important to do work and the relationship of the project to long-term remedial objectives).

## 2. FACILITY (BUILDING/CLUSTER) DESCRIPTION

- A physical description of building area; a brief operational history, including known releases and fires (based, where the information exists, on the historical release record); identification of RCRA units and CERCLA IHSS's; summary of the RLC Report findings.
- The DOP will describe the expected condition of the building at the beginning of decommissioning.

## 3. ALTERNATIVES ANALYSIS & SELECTION

*Include an alternatives analysis and an impact analysis.*

## 4. PROJECT APPROACH

- Description of project including: a description of project activities and work and emission controls; performance standards; any included RCRA closure activities; any separate environmental management or compliance approvals needed; and a description of the on-going plan for facility characterization.
  - Include: Identification of Hazards from the RLCR and how they will be addressed (Recommend use of tables summarizing data).
- Identification of activities to address hazards, including Work/Environmental/Spill(emphasize)/ Effluent controls.
  - Identify Decontamination approach.
  - Identify need for a Final Radiation Survey Plan and a Decontamination Plan.
  - Identify monitoring requirements.
  - Identify cleanup levels.

- Discuss Authorization Basis (reference documents that identify surveillance and equipment maintenance requirements) and Work Authorization

NOTE: Prior to proceeding with decommissioning, a management review of the project's infrastructure, procedures and personnel will be completed by DOE, the LRA and the IMC; such review, to verify that the conditions exist to support the activities safely, ***may*** result in changes to the project as described in this document.

## 5. HEALTH AND SAFETY

- Include a description of the health and safety issues (worker and environmental)
- Include ISM discussion and how safety is built into approach.
- Address emergency response
- Summary of hazards from Project Approach above

## 6. WASTE MANAGEMENT

- Include a summary of the waste management issues, including those related to disposal.
- Identify waste quantities to be generated (TRU, LLW, and sanitary), where it will be staged, and ultimate disposition plans. Discuss unknowns and need for flexibility and possible change due to uncertainties with final destinations. (Waste Process Flow Chart recommended).
- Duration of storage or staging.

## 7. COMPLIANCE W/ ARARS

Includes list of applicable laws, orders, regulations, and CWA or CAA permit requirements; Chemical-, Action- and Location Specific and To-Be-Considered Requirements and Considerations; and RFCA building cleanup criteria and standards.

## 8. ENVIRONMENTAL CONSEQUENCES OF THE ACTION

- Include description of environmental, socioeconomic and cumulative impacts as a result of the project to: geology and soils, air quality, water quality, human health, plants and animals, historic resources, noise levels and the local economy; mitigation measures; unavoidable adverse effects; short-term uses in effect during decommissioning and long-term productivity after the actions are complete, and irreversible and irretrievable commitments of resources.
- Address NEPA and relative impact on human health, worker safety, and the environment.
- Address how the requirements have been met for compliance with the National Historic Preservation Act and the programmatic agreement with the Colorado State Historic Preservation Office.[3]

[3] Sixty-four facilities of the former Rocky Flats Plant have been listed in the National Register of Historic Places as an historic district. A Programmatic Agreement with the Colorado State Historic Preservation Officer requires that the facilities be documented using the Historic American Engineering Record (HAER) format before the facilities are significantly altered or demolished. The documentation is scheduled for completion in March, 1998. The HAER documentation packages are submitted to the National Park Service for approval. Acceptance of the entire documentation package by the National Park Service is expected in the summer of 1998.

## 9. QA/QC

- Include a general description of the quality assurance and control issues.
- Include the training process to assure worker training is adequate, include a matrix of training requirements specific to the decommissioning project.

## 10. IMPLEMENTATION SCHEDULE

- Include a schedule with level of detail addressing room by room (or set) logic and activities (***may*** not need to be to the level identifying individual glovebox, tank or equipment item removal for equipment or sets whose remediation is not complex). This schedule will include anticipated document review times by the LRA.

  *NOTE: This information will be supplied to add clarity to the decision document and to identify the general planned schedule if full funding is available. The schedule is not an enforceable part of the document, and DOE or its contractors **may** deviate from it without penalty and without having to notify or obtain the approval of the LRA in advance.*

## 11. PROJECT ORGANIZATION

- Includes organization chart of project team, and a description of how project fits into larger facility disposition effort.

NOTE: This information will be supplied to add clarity to the decision document and to identify reporting relationships and responsibilities. The organizational structure is not an enforceable part of the document and DOE or its contractors ***may*** deviate from the organization without penalty and without having to notify or obtain the approval of the LRA in advance.

## 12. COMMENTS AND COMMENT RESPONSIVENESS SUMMARY

## 13. REFERENCES

- Include references to other documents used as information sources in the DOP, such as, RFCA, DPP, any RSOPs that would be used, RLC Report, project specific health and safety plan.

# APPENDIX F

## Appendix F Contents

F-1 Core Training Requirements - D&D Worker

# APPENDIX F-1
# Core Training Requirements - D&D Worker

1. Hazard Communications
2. 40-hour OSHA/8-hour Refresher
3. Radiological Worker II
4. General Employee Training - Initial and Refresher
5. RCRA Compliance
6. WSRIC
7. Waste Generator - All Areas + Waste Generator Qualification
8. Nuclear Criticality Safety

**ADDITIONAL CORE TRAINING REQUIREMENTS - SUPERVISOR**

1. 8-hour OSHA for Supervisors
2. Radiological Control for Supervisors
3. Nuclear Criticality Safety for Supervisors
4. Asbestos Awareness for Supervisors

**ADDITIONAL TRAINING AS NEEDED**

1. Fall Protection
2. Industrial Truck
3. Lockout/Tagout

# APPENDIX G

## Appendix G Contents

G-1 Partial And Complete Subcontract Close-Out Form

G-2 Project Beneficial Occupancy Notice (BON)

G-3 Project Acceptance And Transfer Form (PA&T)

G-4 Project Final Closeout Form (FPCO)

# APPENDIX G-1

## Partial and Complete Subcontract Close-out Form *(Sheet 1 of 2)*

| | |
|---|---|
| **WBS #:**_____<br>**B&R #:** _____<br>**PRN #:** _____<br>**Core Charge #:**_____ | **Title/Description:** ❒ Expense, ❒ Capital, ❒ Demolition |

*Note: If this is a demolition Project, provide a list of equipment, systems & structures removed or demolished, with their respective inventory numbers and values.*

**Section I: Partial SubContract Closure:**
*This section provides for the capitalization of equipment/property that has received a Beneficial Occupancy Notice which is closed-out. This **DOES NOT** close the Charge Number of SubContract. P.O. = Purchase Order*

| CHARGE # | P.O. #/ TASK #/LINE # | % | TOTAL $ PER CHARGE | CHARGE # | P.O. #/ TASK #/LINE # | % | TOTAL $ PER CHARGE |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

**Section II: SubContract And/Or Charge Number Closure:**
*This section provides for the total closure of subcontract(s) at the task level and the initiation of charge number closeout after all contracts have achieved 100% completion. P.O. = Purchase Order*

| CHARGE # | Other SubContracts Still Open? Y/N | P.O. #/ TASK #/LINE # | P.O. #/ TASK #/LINE # | P.O. #/ TASK #/LINE # |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

**If Yes, closeout only the subcontract(s) as listed above. If NO, closeout the applicable subcontract(s) task # referenced above and initiate financial closeout of the charge number(s) as listed. These Charge Numbers will not have any labor hours charged against them after ton of the following:**

**❒ 90 days from the date this notice is submitted to procurement, or**

**❒ after _____ (date)**

**Attach a list of equipment, systems & structures with their respective inventory numbers, values and a copy of the Beneficial Occupancy Notice and/or Project Acceptance and Transfer.**

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# APPENDIX G-1
## Partial and Complete Subcontract Close-out Form *(Sheet 2 of 2)*

| **Comments:** |
|---|
| |

| **SIGNOFFS:** | | |
|---|---|---|
| **Name (Print)** | **Name (Sign)** | **Date** |
| | | |
| ***End User:*** *All deliverables have been received, the contract(s) is functionally completes, and is ready for financial and/or charge number closeout. (Required for Section I, II)* | | |
| | | |
| ***Project Manager:*** *Signoff stipulates that all deliverables have been received, the contract(s) is functionally complete, and is ready for financial and/or charge number closeout: (Required for Section I, II)* | | |
| | | |
| ***Procurement:*** *Procurement has been notified that the sub- contract(s) is functionally and technically complete, and has received the list of systems, structures, components, and deliverables associates with the project. (Required for Section II)* | | |
| | | |
| ***Receiving/Property Management:*** *The attached list of equipment, systems, structures & components with a value over $25, 000 of three years or more has been received, tagged, entered into the MARS G database as received, and PEMS database and has been withdrawn from Warehouse/storage. (Required for Section I, II)* | | |

***Distribution:***
Accounting, Maintenance, Property Management, User, CTR (for Labor Contractors only), and Project Files

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# APPENDIX G-2

## PROJECT BENEFICIAL OCCUPANCY NOTICE

| | REQUIRED APPROVALS | REQUIRED DISTRIBUTION |
|---|---|---|
| Date:_____<br>Project:_____<br>Building:_____<br>Authorization #:_____<br>SubContract#:_____<br>SubContractor:_____ | FACILITIES INSPECTION | Area Utilities Manager<br>Plant Alarms |
| | FACILITY MANAGER | Telecommunications<br>Fire Protection Bureau |
| | PROJECT MANAGER | Wackenhut Services<br>Heath & Safety Area Management |
| Beneficial Occupancy is taken of the Following Rooms/Areas and/or Equipment of the Referenced Project With Exceptions as Noted: | PLANT PROJECT ENGINEERING | Environmental Management<br>Waste Operations |
| | AREA CONSTRUCTION MANAGER | Criticality Engineering<br>Emergency Preparedness |
| | K-H CONSTRUCTION MANAGER | Subcontractor Administrator<br>Shift Superintendent |
| | | Close Out Administrator<br>Plant Services |
| Use or Possession of the Above Listed Rooms or Areas ins Not an Acceptance of any Work Under the Terms of the Contract. | | Property Management |

THE ABOVE PROJECT IS BEING COMPLETED THROUGH INTEGRATE WORK CONTROL PACKAGE (IWCP) NUMBER(S):

_____

# APPENDIX G-3
## Project Acceptance and Transfer Form

| PROJECT ACCEPTANCE AND TRANSFER FORM | | | |
|---|---|---|---|
| | | REQUIRED APPROVALS | REQUIRED DISTRIBUTION |
| DATE: | AUTHORIZATION#: | FACILITIES INSPECTION | Area Utilities Manager<br>Plant Alarms (B441) |
| PROJECT: | SUBCONTRACT#: | FACILITY MANAGER | Telecommunications (T112A)<br>Fire Protection Engineering (B130) |
| BUILDING: | SUBCONTRACTOR: | PROJECT MANAGER | Wackenhut Services (T119B)<br>H&S Area Management (T452D) |
| An Inspection Of The Project Reveals That It Has Been Completed In Compliance With The Contract And Plans And Specifications: | | PROJECT ENGINEER | Environment Restoration (T893B)<br>Waste Operations (B130) |
| | | AREA CONSTRUCTION MANAGER | Criticality Engineering (T886B)<br>Emergency Preparedness (B130) |
| This Project Is Accepted For Final Occupancy And Is Hereby Transferred To Kaiser-Hill, L.L.C. For Operations. | | K-H CONSTRUCTION MANAGER | Subcontractor Administration<br>Superintendent |
| The Above Project was completed through Integrated Work Control Package(s)<br>_____ _____ _____ _____<br>_____ _____ _____ _____ | | | Close-Out Administration (B130)<br>Plant Services (B331)<br>Property Management (T334B) |

# APPENDIX G-4
## Project Final Closeout Form (FPCO)

| WBS#: | B&R#: | PRN#: | Core Charge #: |
|---|---|---|---|
| **PROJECT CHARGE #'s:** | | | |
| | | | |
| | | | |
| | | | |
| | | | |

☐ Cancelled ☐ Scope/Estimate Only ☐ Study ☐ Complete ☐ Procurement

*Attach the "Partial" or "Complete Subcontract Closeout" forms. Financial closeout h as been initiated for this charge number. This charge number will be closed to all charges on _____(Date). All closeout activities must be completed by this time.*

| **SIGNOFFS:** | | |
|---|---|---|
| **Name (Print)** | **Name (Sign)** | **Date** |
| | | |
| ***Project Engineer:*** *The subcontractors redline drawings are complete and in accordance with the designed scope of work and included all approved filed charges. Red-lined drawings have been received from the sub-contractor.* | | |
| | | |
| ***Project Manager:*** *All applicable sub-contracts have been accepted as complete, the design and construction management files have been consolidated into the project files, indexed in accordance with the Project File Index/Records Checklist and a lessons learned letter provided to the Closeout Manager for reference on future similar projects, if applicable.* | | |
| | | |
| ***Closeout Project Manager:*** *Ownership of the attached list of equipment, systems, structures and components have been transferred to the permanent property custodian, and the project files are ready to be archived.* | | |

**DATE OF CHARGE NUMBER CLOSEOUT:**_____

| Comments: *(Reference Old Charge Number if appropriate)* |
|---|
| |

| | | |
|---|---|---|
| | | |
| ***Records Management Manager:*** *The project files have been received and are acceptable. (Note: Project Closeout Manager is responsible for submitting FPCO to Records Management for signature).* | | |

***Distribution:*** Accounting, Maintenance, Property Management, User, CTR (for Labor Contractors only), and Project Files

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# APPENDIX H
# Glossary and Acronyms

**ACROYMNS**

| | |
|---|---|
| AB | Authorization Basis |
| ACWP | Actual Cost of Work Performed *(Actuals)* |
| AECCM | Architect/Engineering/Construction/Construction Management |
| AR | Administrative Record |
| ARAR | Applicable or Relevant and Appropriate Requirement |
| ASA | Auditable Safety Analysis |
| ASF*(ASP)* | Activity Screening Form *(Activity Screening Process)* |
| BCP | Baseline Change Proposal |
| BCWP | Budgeted Cost of Work Performed *(Earned Value)* |
| BCWS | Budgeted Cost of Work Scheduled *(Budget)* |
| BEST | Basis of Estimate *(Software Program)* |
| BFO | Basis for Operation |
| BIO | Basis for Interim Operation |
| CAA | Clean Air Act |
| CAB | Citizens Advisory Board |
| CAD/ROD | Corrective Action Decision/Record of Decision |
| CDPHE | Colorado Department of Public Health and Environment |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CHWA | Colorado Hazardous Waste Act |
| COOP | Conduct of Operations |
| CPB | Closure Projects Baseline |
| CPM | Critical Path Method *(schedule)* |
| CTR | Contractor Technical Representative |
| CV | Cost Variance *(BCWP-ACWP)* |
| CWA | Clean Water Act |
| CWBS | Common Work Breakdown Structure |
| D&D | Decontamination and Decommissioning |
| DNFSB | Defense Nuclear Facilities Safety Board |
| DOE/RFFO | Department of Energy/Rocky Flats Field Office |
| DOP | Decommissioning Operations Plan |
| DPP | Decommissioning Program Plan |
| DQO | Data Quality Objective |
| EAC | Estimate at Completion |
| EIS | Environmental Impact Statement |
| ERE | Environmental Readiness Evaluation |
| ER | Environmental Restoration |
| EV | Earned Value *(BCWP)* |
| FFCA | Facility Facilities Compliance Act |
| FSAR | Final Safety Analysis Report |
| GSA | Government Services Administration |
| HASP | Health & Safety Plan |
| HUD | Housing Urban Development |
| HVAC | Heating, Ventilation, and Air Conditioning |
| ICCB | Internal Change Control Board *(Kaiser-Hill Chaired)* |
| IGD | Implementation Guidance Document *(for RFCA)* |
| IHSS | Individual Hazardous Substance Site |
| IM/IRA | Interim Measure/Interim Remedial Action |
| ISMS | Integrated Safety Management System |
| IWCP | Integrated Work Control Program |
| LCB | Life-Cycle Baseline |
| LLW | Low Level Waste |

| | |
|---|---|
| LOE | Level of Effort |
| LRA | Lead Regulatory Agency |
| MOU | Memorandum of Understanding |
| NEPA | National Environmental Protection Act |
| ORR | Operational Readiness Review |
| OSHA | Occupational Safety and Health Administration |
| OU | Operable Unit |
| P&I | Planning and Integration |
| PAM | Proposed Action Memorandum |
| PBD | Project Baseline Document |
| PCS | Project Control System |
| PEP | Project Execution Plan |
| PM | Project Manager |
| PMB | Performance Measurement Baseline |
| PMM | Property Management Manual |
| PMP | Project Management Plan |
| POD | Plan of the Day |
| PTS | Progress Tracking System |
| PU&D | Property Utilization and Disposal |
| QA/ QC | Quality Assurance/Quality Control |
| RCM | Radiological Control Manual |
| RCRA | Resource Conservation and Recovery Act |
| RDM | Readiness Determination Manual |
| RFCA | Rocky Flats Cleanup Agreement |
| RFCP | Rocky Flats Closure Project |
| RFETS | Rocky Flats Environmental Technology Site |
| RFLII | Rocky Flats Local Impacts Initiative *(Public Group)* |
| RLCP/ RLCR | Reconnaissance Level Characterization Plan/Reconnaissance Level Characterization Report |
| RM | Responsible Manager |
| RWP | Radiological Work Permit |
| SAP | Sampling and Analysis Plan |
| SCCB | Site Change Control Board *(RFFO Chaired)* |
| SDRM | Site Documents Requirements Manual |
| SERM | Site Engineering Requirements Manual |
| SES/USQD | Safety Evaluation Screen/Unreviewed Safety Question Determination |
| SME | Subject Matter Expert |
| SMP | Safety Management Program |
| SNM | Special Nuclear Material |
| SOW | Statement of Work |
| SRA | Support Regulatory Agency |
| STP | Site Treatment Plan |
| SV | Schedule Variance *(BCWP-BCWS)* |
| TRU | Transuranic |
| WAD | Work Authorization Document (*contractual agreement between RFFO and Kaiser-Hill)* |
| WBS | Work Breakdown Structure |
| WCD | Work Control Document *(used generically for all IWCPs, procedures, instructions, etc.)* |
| WPD | Work Planning Document *(precursor to the WAD documents intended plan for RFFO approval)* |
| WCF | Work Control Form |

**TERMS & DEFINITIONS:**

**Activity**. A defined scope of work for designation of controls to maintain an adequate margin of safety against the hazards or other uncertainty presented by the work.

**Administrative Controls**. Provisions relating to organization and management, procedures, recordkeeping, assessment, and reporting necessary to ensure the safe operation of a facility.

**Administrative Request**. A request for Administrative support of maintenance, e.g., Standard Work Package, Preventive Maintenance Work Package.

**Auditable Safety Analysis (ASA).** A defensible safety analysis (similar to a SAR but with much reduced content and requirements) which is developed for a radiological facility. An auditable safety analysis:
Provides systematic identification of hazards within a given DOE operation; and
Describes and analyzes the adequacy of measures taken to eliminate, control or mitigate identified hazards. [DOE-EM-STD-5502-94]

**Authorization**. The granting of approval to operate a facility or process in accordance with the terms and conditions of a set of authorization controls. Authorization is provided by an regulator and/or legal authority.

**Basis.** Summary statement of the reason for the administrative and engineered controls, the administrative control program and the associated surveillance requirements. The Basis relates the credited assumptions made in the accident analysis to the requirements for safe operation.

**Building Type.**
- Type 1 – Building Free of Contamination
- Type 2 – Buildings without significant contamination or hazards, but in need of decontamination
- Type 3 – Buildings with significant contamination and/or hazards

**Construction.** For purposes of this document, the term referring to D&D, new or modified construction, and remediation work performed on Site.

**Construction Health and Safety Plan.** A written document prepared by the subcontractor that includes; the subcontractor's proposal for implementing Site CONSTRUCTION health and safety requirements, identification of subcontractor supervisor personnel, competent persons and qualifications responsible for health and safety performance, and proposed construction site health and safety orientation.

**Construction Specifications Institute.** Master system of specification guides developed by industry groups to be used for the establishment of contractual relations between parties involved in a CONSTRUCTION project.

**Contact Record**. A written documentation of agency conversations resulting in regulatory negotiations and decisions.

**Contractor's Technical Representative**. In accordance with the K-H Procurement System, CTRs act as the authorized representatives of the Company in performing such functions as approval of drawings, testing, approval of samples, inspection and monitoring of the subcontractor's work, and other functions of a technical nature not involving a change in work, prices, delivery, or terms and conditions of the subcontract. CTRs vary by project and are necessary for all service type requirements.

**Cross-Table Review.** A documented, critical review performed by peers who are independent of the work being reviewed. Each peer's independence from the work being reviewed means that the peer:
Was not involved as a participant, supervisor, technical reviewer, or advisor in the work being reviewed. Has sufficient freedom from budget and line-management considerations of the development organization to ensure that the work is reviewed impartially.

A Cross-Table Review is an in-depth critique of assumptions or bounding conditions, calculations, alternate interpretations, methodology, and acceptance criteria employed, and of the conclusions drawn in the original work. The goal is to assess the adequacy of the original work, not to redesign it if it is deemed adequate. The Cross-Table Review is a team effort, with the peer review group and the members of the original planning team acting together, rather than submitting comments between groups. This method embraces the opportunity for in-depth discussion of questions and ideas

**Data Quality Objectives (DQOs).** DQO's are qualitative and quantitative statements derived from the DQO process that clarify technical and quality objectives, define the appropriate type of data, and specify levels of decision error that will be used as the basis for establishing the quality and quantity of data necessary to support facility disposition decisions.

**Davis-Bacon**. Work that is covered under the provisions of the Davis-Bacon Act, and is considered to be CONSTRUCTION type work and cannot be assigned to contractor or subcontractor's maintenance forces.

**Engineering Services.**
Preliminary Design (Title I) Preliminary design that extends the Conceptual Design and the Design Criteria to determine the requirements and criteria which will govern the Title II design. Tasks include preparation of preliminary planning and engineering studies, preliminary drawings and outline specification, life-cycle cost analysis, preliminary cost estimates, and scheduling for project completion. Preliminary design provides identification of long lead procurement items and analysis of risks associated with continued project development.
Definitive Design (Title II) Definitive design that continues the development of the project based on the approved Title I design. Definitive design includes any revisions required of the Title I effort; preparation of final working drawings, specification, bidding documents, cost

estimates, and coordination with all parties which might affect the project; development of firm construction and procurement schedules; and assistance in analyzing proposals or bids.
Title III Services Service activities required to ensure that the project is constructed in accordance with approved drawings and specifications and that the quality of materials and workmanship is consistent with the requirements of a project.

**Design-Bid-Build Method.** Separate subcontracts are issued for the design and the construction.

**Design/Build Method.** A single subcontract is issued for both the design and construction.

**Design Criteria.** Translates the requirements from the URD into design parameters. It contains technical data and other project information developed during project identification and planning, conceptual design, and preliminary design phases.

**Environmental Degradation.** Conditions adverse to the safety of the environment that ***may*** impact personnel and public safety within and outside of RFETS boundaries.

**Environmental Regulatory Compliance Facilities, Systems, or Hardware.** Any facility, system, or hardware used for containing, monitoring, moving, processing, or analyzing environmentally significant items or events including but not limited to:

- *Air monitoring stations.*
- Secondary containment of liquids.
- Waste management systems, primary and ancillary.
- Tanks.
- Data monitoring or analysis equipment.
- Significant controlling software.

**Facility.** Any equipment, structure, system, process, or activity that fulfills a specific purpose. [DOE M 232.1] The definition of facility most often refers to buildings and other structures, their functional systems and equipment, and other fixed systems and equipment installed therein to delineate a facility. *However, specific operations and processes independent of buildings or other structures (e.g., waste retrieval and processing, waste burial, remediation, groundwater or soil decontamination, decommissioning)* are also encompassed by this definition. [DOE-STD-3009-94] For the purpose of this procedure, the facility designation is expanded to include any formally designated building, site, structure, area, or project (such as Building 371, PADs, Tents, or Ponds) where a formal work authorization must be granted prior to conducting work.

**Facility Disposition.** The disposition of a facility post-operations and maintenance. It ***may*** include the following activities: deactivation, decontamination, decommissioning, dismantlement, and demolition. All lead toward environmental remediation/restoration. See Chapter 1 for definitions of: deactivation, decontamination, decommissioning, dismantlement, and demolition

**Graded Approach.** A process by which the level of analysis, documentation, and actions necessary to comply with a requirement are commensurate with:

- Relative importance to safety, environment, safeguards, and security
- Magnitude of any hazard involved
- Life-cycle stage of the facility or activity
- Programmatic mission of the facility or activity
- Particular characteristics of the facility or activity
- Other relevant factor, as appropriate
- The Quality Assurance (QA) Rule (10 CFR 830.120) and DOE Order 5700.6C are applied to the Site through the use of a graded approach. In order to ensure the most efficient use of resources, a graded approach is used to determine the rigor with which the QA requirements are applied to a specific facility or activity. This approach provides the flexibility to implement the programs in a way that best suits the facility or activity while maintaining full compliance with the QA Rule and DOE Order 5700.6C.

**Hazard.** A source of danger (i.e., material, energy source or operation) with the potential to cause illness, injury, or death to personnel or damage to a facility or to the environment (without regard for the likelihood or credibility of accident scenarios or consequence mitigation). [10 CFR 830.3]

**Hazard Analysis.** The determination of material, system, process, and facility characteristics that can produce undesirable consequences, followed by the assessment of hazardous situations associated with a process or activity. Largely qualitative techniques are used to pinpoint weaknesses in design or operation of the facility that could lead to accidents. [DOE-STD-3009-94] (e.g., JHA, ALARA Review, etc.).

**Hazard Categories.** The consequences of unmitigated releases of radioactive and/or hazardous material are evaluated and classified by the following nuclear hazard categories:
Hazard Category 1: The hazard analysis shows the potential for significant off-Site consequences.
Hazard Category 2: The hazard analysis shows the potential for significant on-site consequences.
Hazard Category 3: The hazard analysis shows the potential for only significant localized consequences. [DOE 5480.23]

**Hazardous Material.** Any solid, liquid, or gaseous material that is toxic, explosive, flammable, corrosive, or otherwise physically or biologically threatening to health. Oil is excluded from this definition. [DOE 5480.23] Solid, liquid, or gaseous substances in quantities that either alone, when combined with another substance through a credible mechanism, or when coming in contact with an available energy source, are determined to be capable of posing an unacceptable risk to the environment or to the health and safety of the workers or the public. This includes radiological, non-radiological and mixed materials that are toxic, explosive, flammable, corrosive, or otherwise physically or biologically health threatening.

**Health and Safety Plan (HASP).** A safety analysis for facilities or operations involving hazardous waste based on the minimum requirements of 29 CFR 1910.120, *Hazardous Waste Operations and Emergency Response.*

**Hold Point.** A step in the work package where work is not allowed to proceed until the step is complete and signed, e.g., inspection point, verification point.

**Independent/Peer Review.** *An critical review performed by peers who are independent of the work being reviewed.* Otherwise known as a Cross-Table Review.

**Integrated Safety Management (ISM).** ISM is the systematic integration of safety into management and work practices at all levels so that missions are accomplished while protecting the public, the worker, and the environment. *This is to be accomplished through effective* integration of environment, safety and health into work planning and execution. In other words, the overall management of safety functions and activities becomes an integral part of mission accomplishment.

**Job Hazard Analysis (JHA).** A documented process whereby the steps for a work activity are analyzed for hazards and control measures prior to the work being performed.

**Non-nuclear Authorization Basis**. Those aspects of the conduct of the activity and associated operations relied upon by contractor management to authorize operation. These aspects are considered important to conducting the activity safely. The non-nuclear authorization basis is described in documents such as the Health and Safety Plan (HASP), Auditable Safety Analysis (ASA), Integrated Work Control Program (IWCP), Radiological Work Permit (RWP), or other work control documents depending on the inventories of hazardous materials or *hazards estimated to be inherent in the activity.*

**Notes.** A statement that provides important supplemental information. Notes can pertain to action steps. When associated with action steps, the note precedes the step or steps to which it applies. Notes do not contain action steps. . For emphasis, the caution is enclosed in a box and labeled **NOTE.**

**Nuclear Activity.** See the following definition for Nuclear Facility. Note that definition of Nuclear Facility, as provided by 10 CFR 830.3 includes *"those activities or operations that involve radioactive and/or fissionable materials in such form and quantity that a nuclear hazard potentially exists to the employees or the general public".* [10 CFR 830.3]

**Nuclear Facility.** This manual applies to nuclear facilities, as generally defined by 10 CFR 830.3. The specific definition of nuclear facilities, as used in the scope of this manual, is limited to Hazard Category 2 and 3 facilities at the Site. When cited in this manual, nuclear facilities means Hazard Category 2 and 3 facilities only. The definition of Hazard Category 2 and 3 is as specified by DOE Order 5480.23 and DOE Technical Standards DOE-STD-1027-92, *Hazard Categorization and Accident Analysis Techniques for Compliance with DOE Order 5480.23, Nuclear Safety Analysis Reports,* and DOE-EM-STD-5502-94, *Hazard Baseline Documentation.* For information, the definition for nonreactor *nuclear facility is provided in 10 CFR 830.3:*

**Nuclear Authorization Basis**. Those aspects of the nuclear facility design basis and operational requirements relied upon by DOE to authorize operation. These aspects are considered to important to the safety of the facility operations. The authorization basis is described in documents such as the facility Safety Analysis Report and other safety analyses, *hazard classification documents and the Technical Safety* Requirements, DOE-issued safety evaluation reports, and facility-specific commitments made in order to comply with DOE rules, Orders, or policies.

**Planning Team.** The team assigned the responsibility of planning the work for both the Medium and High Planning Levels.

**Project Execution Plan (PEP).** A Project Management Plan (PMP) and Project Execution Plan (PEP) are use synonymously throughout this manual. PMPs/PEPs define the project charter, work plan, and requirements implementation. The charter includes the project vision, mission, critical success factors, and performance measures. The work plan includes the Work Breakdown Structure (WBS), responsibility assignment, scope of work, estimated schedule, estimated cost for the project, and project controls. A PMP Template can be found in the K-H Planning and Integration manual of standards, Standard 16.

**Project Team.** Participants on a project including the Program Manager, Project Manager, Project Engineer, Building/User Representatives, Contractor Representative, Construction Engineer, appropriate subject matter expert(s), and other personnel assigned to the project.

**Public.** All individuals outside the DOE Site boundary. [DOE-STD-3009-94]

**Quality Assurance Plan.** A formal document describing necessary quality assurance, quality control, and other technical activities that are implemented to ensure that the results of the work performed will satisfy the stated performance criteria.

**Remediation.** Activities conducted to reduce potential risks to people and/or harm to the environment from radioactive and/or hazardous substance contamination.

**Responsible Manager (RM).** The manager directly responsible and accountable for the development, implementation, and performance of the work (e.g., Facility Manager, Building Manager, Operations Manager, Maintenance Management, and Project Manager)

**Responsible Organization.** *The organization that is assigned by the MM to have the primary or lead responsibility for the resolution of a* deficiency or completion of a required action on a Work Request or Administrative Request. The Responsible Organization can be any site organization, including that of the originating RM.

**Safety Basis**. The combination of information relating to the control of hazards at a facility (including design, engineering analyses, and administrative controls) upon which DOE depends for its conclusion that activities at the facility can be conducted safely. [10 CFR 830.3]

**Scope**. Statement specifying the performance boundaries of the work activity to be executed. (e.g., remove/install piping, run conduit, install fire control panel etc.)

**Scope of Work**. Refers to the project or activity baseline that defines technical objectives and general approaches in terms of design, execution, and performance requirements, criteria, and characteristics derived from what the project is intended to accomplish.

**Skill-of-the-Worker.** Those skills that a journeyman craftsman/technician **Should** be able to perform commensurate with his/her journeyman/skill training without specific task instructions (i.e., instruct craft to install hot water heater element without providing detailed instructions). Skill-of-the-Worker is applicable to WPs, EDPs, TPs and Minor Maintenance.

**Slab**. The slab is the foundation, footprint, or pad that remains following demolition of the facility or building.

**Source Document**. Documents or references that support, initiate, or cross-reference the Work Control Form (WCF). These documents *may* include: (CCCP)
*Requirement documents (such as DOE orders, Engineering specifications, or administrative or technical procedures)*
Deficiency corrective action documents (such as audits, self-assessments, NCR's, safety concerns, or Occurrence Report actions)

**Statement of Work (SOW)**. Describes the essential and technical requirements for items , materials, or services to be provided.

**User Requirement Document (URD)**. Translates the needs and requirements for the project into a baseline document in which the physical requirements, safety requirements, national codes and standards, Site Engineering Standards, and DOE orders are identified and agreed to by the appropriate parties. These will be the requirements that must be met and complied with and will provide the basis for monitoring and verifying compliance as the work progresses.

**Work**. Any project or activity that has the potential to produce damage to the environment, injury to the public or worker in the event of an accident or process upset.

**Work Authorization Process**. The planning and preparation for the conduct of an activity, which result in a documented safety basis and a verifiable ready to proceed status.

**Work Control Documents**. Those documents that are used directly to perform tasks in preparation for or in the performance of an activity, such as IWCP work packages, technical procedures, and Engineering Design Packages (EDPs).

**Work Control Form (WCF)**. The form utilized to initiate, process, and assign a Work Request or Administrative Request to the Responsible Organization.